ORDER NO. GAD8610616C8

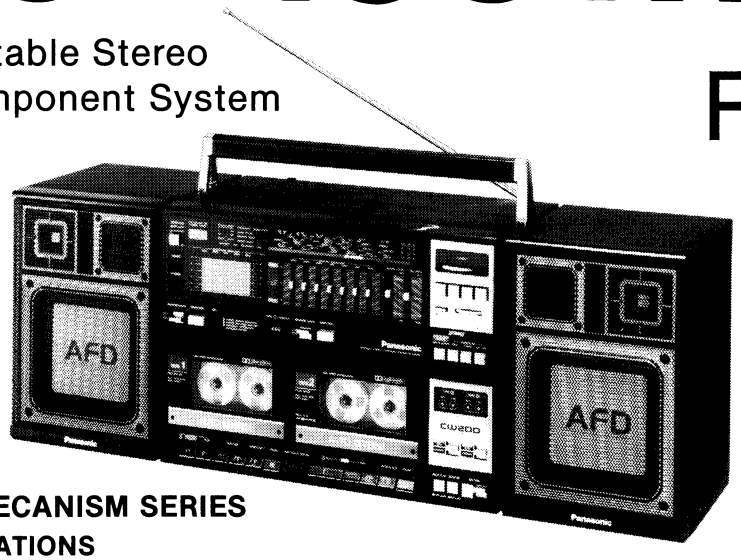
Service Manual

Portable Stereo
Component System

Radio Cassette

RX-CW200L

(Black)



This is the Service Manual for the following areas.

- [Z] ··· For all European areas except United Kingdom, F.R Germany, France, Italy and Finland.
- [E] ··· For United Kingdom.
- [F] ··· For France.
- [I] ··· For Itary and Finland.
- [G] ··· For F.R. Germany.
- [XC] ··· For Saudi Arabia.

RX-C66F MECANISM SERIES

■ SPECIFICATIONS

General:

Power Requirement:	AC; [Z][F][I][G]...220V, 50Hz [E]...240V, 50Hz [XC]...110~127/200~220/230~250V, 50/60Hz Battery; 15V (Ten "D" Size Flashlight Batteries) (Panasonic UM-1 or equivalent) Car Battery; with optional car battery card RP-9550
Power Consumption:	[Z][E][F][I][G]...70W (AC only) [XC]...76W (AC only)
Power Output:	[Z][E][F][I][G]...50W (25W×2) MPO [XC]...150W (75W×2)...PMPO 36W (18W×2)...RMS (max.)
Speaker:	Woofer; 12cm×12cm AFD Speaker (8Ω) Squawker; 5cm PM Dynamic Speaker (8Ω) Tweeter; 2cm Ceramic Speaker (1.4kΩ)
Input:	MIX. MIC; sensitivity 1.6mV/applicable microphone impedance 200~600Ω (φ3.5) CD/LINE IN; sensitivity 316mV/47kΩ over DC IN; 13.2V
Output:	EXT SP; 8Ω, φ3.5 HEADPHONES; 32Ω, φ3.5
Dimensions:	Total Size; 660(W)×300(H)×193(D)mm Main Unit; 339(W)×245(H)×193(D)mm Speaker Box; 165(W)×244(H)×175(D)mm
Weight:	8.4kg without batteries

Radio Section:

Radio Frequency Range:	FM; 87.5~108MHz LW; [Z][E][F][I][G] 148.5~285kHz (2020~1052m) LW; [XC] 150~285kHz (2000~1052m) MW; [Z][E][F][I][G] 520~1610kHz (577~186m) MW; [XC] 530~1610kHz (566~186m) SW; 5.9~18MHz (50.8~16.7m)
Intermediate Frequency:	FM; 10.7MHz AM (LW/MW/SW); 455kHz [Z][F][I][G][XC] (470kHz [E])
Sensitivity:	FM; 1.8μV/50mW output (−3dB Limit sens) LW; 125μV/m/50mW output MW; 56μV/m/50mW output SW; 3.5μV/50mW output

Tape Deck Section:	**Tape 1**
Frequency Response:	55~15,000Hz (with normal tape) 55~16,000Hz (with CrO_2 & Metal tape)
Recording System:	AC bias, AC erase
Tape Speed:	4.8cm/s
Track System:	4-track 2-channel stereo recording and playback

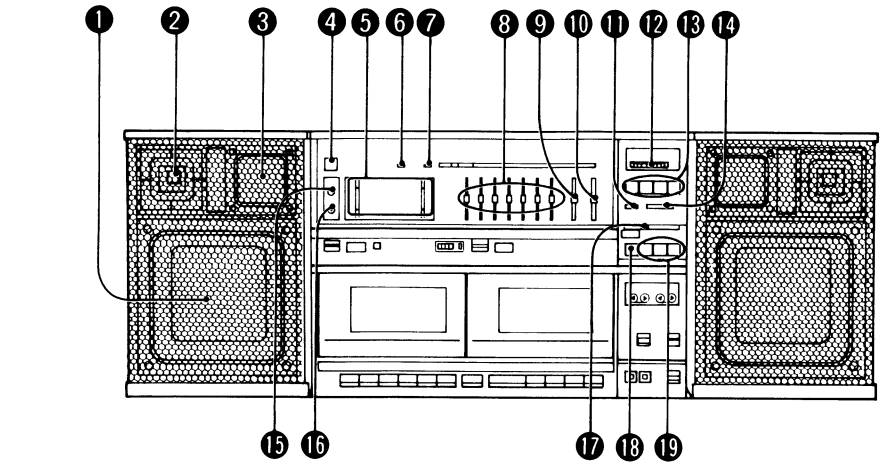
Tape Deck Section:	**Tape 2**
Frequency Response:	55~15,000Hz (with normal tape) 55~16,000Hz (with CrO_2 & Metal tape)
Tape Speed:	4.8cm/s
Track System:	4-track 2-channel stereo playback

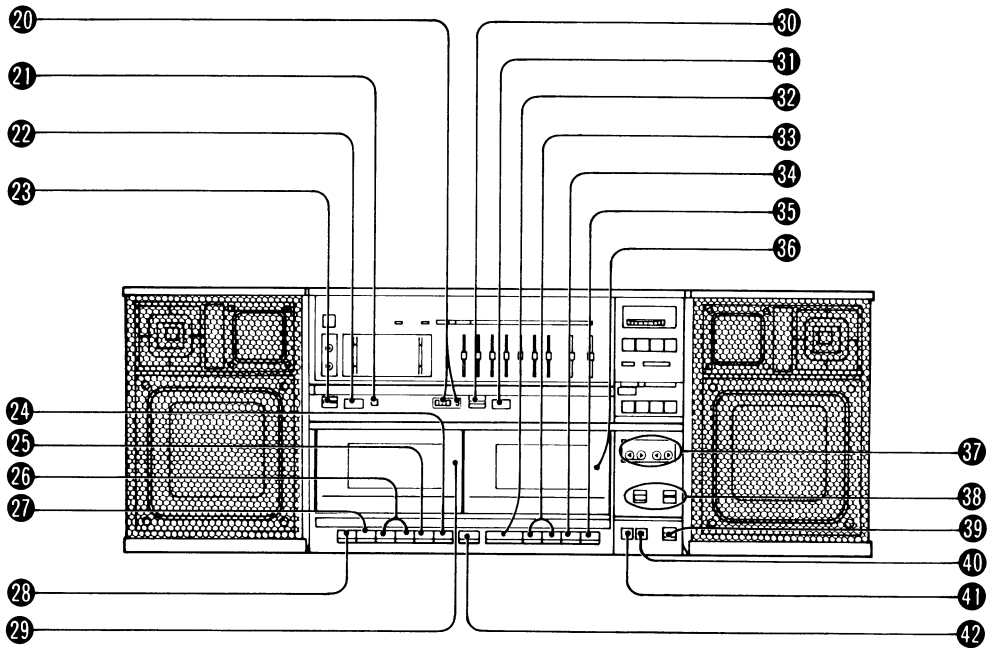
Design and specifications are subject to change without notice.

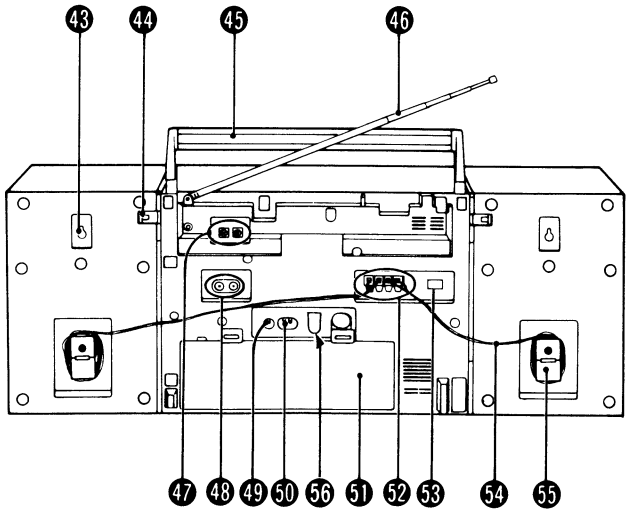
Panasonic

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS AND COMPONENTS







D

❶ Speakers (Woofer) (12cm×12cm, 8Ω)
❷ Speakers (Tweeter) (2cm, 1.4kΩ)
❸ Speakers (Squawker) (5cm, 8Ω)
❹ Operation Switch (OPERATION)
❺ Spectrum Analyzer (SPECTRUM ANALYZER)
❻ Operation/Battery Check Indicator (OPR/BATT)
❼ FM Stereo Indicator (FM STEREO)
❽ Graphic Equalizer/Frequency Distribution Equalizer Controls (GRAPHIC EQUALIZER/F.D.EQ)
❾ Mixing Level Control (MIXING LEVEL)
❿ Balance Control (BALANCE)
⓫ FM Mode Selector (FM MODE)
⓬ Tuning Control (TUNING)
⓭ Band Selector (BAND)
⓮ Fine Tuning Control (FINE TUNING)
⓯ Mixing Microphone Jack (MIX.MIC) (1.6mV/200~600Ω)
⓰ Headphones Jack (PHONES) (32Ω, φ3.5)

When using the headphones (EAH-S10, optional), avoid listening to sound for a long period of time at excessive volume levels, which may injure your ears.

⓱ Volume Control (VOLUME)
⓲ Equalizer Mode Selector (EQUALIZER MODE)
⓳ Function Selector (FUNCTION)

TAPE 1 (For Recording and Playback)

⓴ Tape 1 Counter and Reset Button (TAPE 1 COUNTER)
㉑ Built-in Microphone (MIC)
㉒ Direction Button (DIRECTION)
㉓ Reverse Mode Selector (REVERSE MODE)
㉔ Pause Button (❚❚PAUSE)
㉕ Stop/Eject Button (■/▲STOP/EJECT)
㉖ Fast/Cue Buttons (◀◀·▶▶ FAST/CUE)
㉗ Playback Button (▶PLAY)
㉘ Record Button (● RECORD)
㉙ Cassette Compartment

TAPE 2 (For Playback)

㉚ Reverse Mode Selector (REVERSE MODE)
㉛ Direction Button (DIRECTION)
㉜ Playback Button (▶PLAY)
㉝ Fast/TPS Buttons (◀◀·▶▶ FAST TPS)
㉞ Stop/Eject Button (■/▲STOP/EJECT)
㉟ Pause Button (❚❚PAUSE)
㊱ Cassette Compartment

㊲ Direction Indicators (DIRECTION)
㊳ Tape Selectors (TAPE SELECTOR)
㊴ Editing Mode Selector (EDITING)
㊵ Dolby※ NR Switch (DOLBY NR)
㊶ Relay Playback Switch (RELAY PLAY)
㊷ One Touch Editing Button (ONE TOUCH EDITING)

㊸ Speaker Wall Mounts
㊹ Speaker Release Levers (RELEASE)
㊺ Detachable Carrying Handle
㊻ Telescopic Antenna
㊼ External Antenna Terminals (FM ANT/SW ANT)
㊽ CD/Line Input Jacks (CD/LINE IN) 316mV/47kΩ
㊾ DC Input Jack [DC IN 13.2V (12–15V)⊖⊙⊕]
㊿ AC Socket (AC IN~)
(51) Battery Compartment
(52) Speaker Terminals (SPEAKER IMP 8Ω ONLY)
(53) Beat Proof Switch (BEAT PROOF)
(54) Speaker Cables
(55) Speaker Cable Compartments
(56) Voltage Selector (for Saudi Arabia only.)

※ 'Dolby' and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.

CAUTIONS ON DISASSEMBLY AND ASSEMBLY

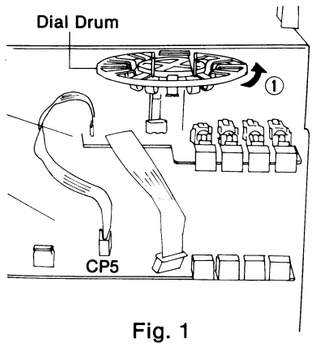


Fig. 1

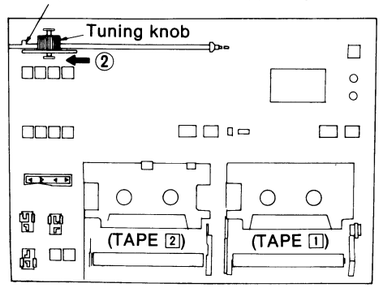


Fig. 2

- Turn the dial drum all the way in the direction of the arrow ①. (Fig. 1)
- Turn the tuning knob in the direction of the arrow ② until the rack (dial pointer) is stopped by the boss. (Fig. 2)

DISASSEMBLY INSTRUCTIONS

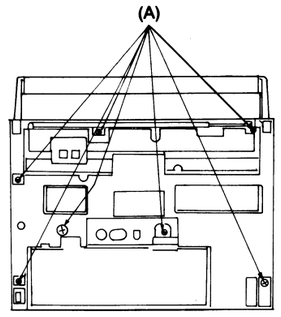


Fig. 1

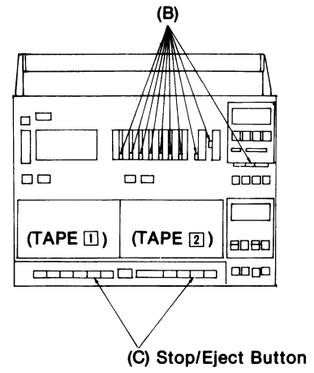


Fig. 2

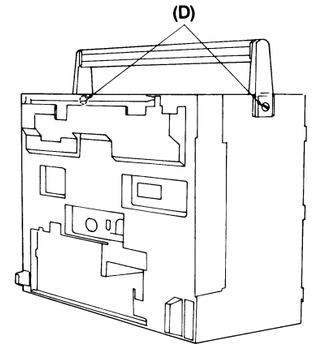


Fig. 3

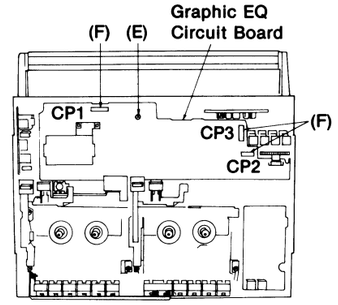


Fig. 4

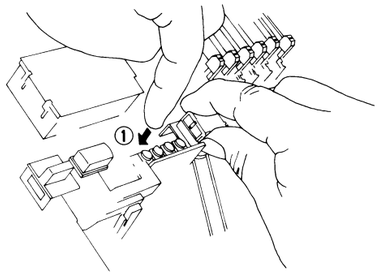


Fig. 5

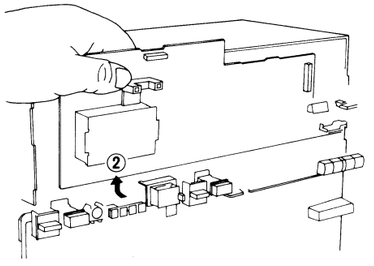


Fig. 6

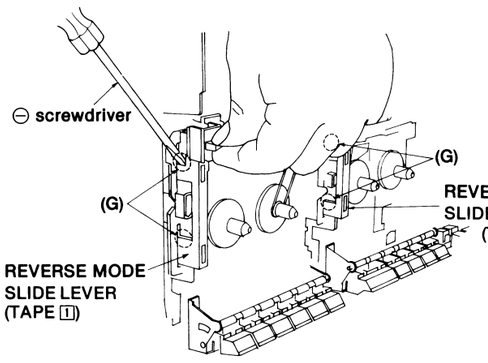


Fig. 7

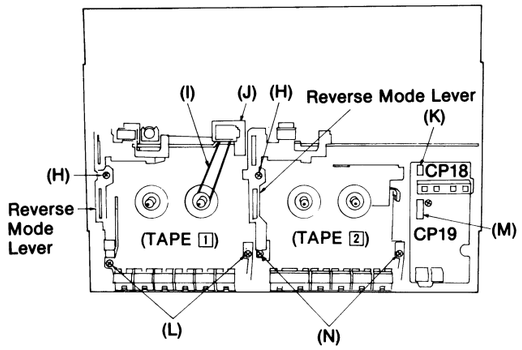


Fig. 8

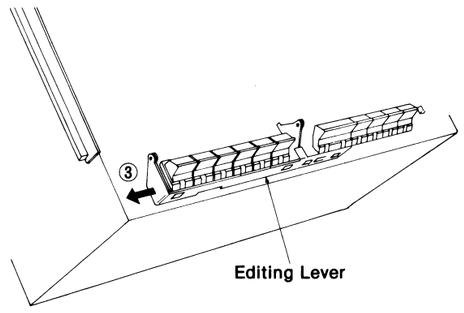


Fig. 9

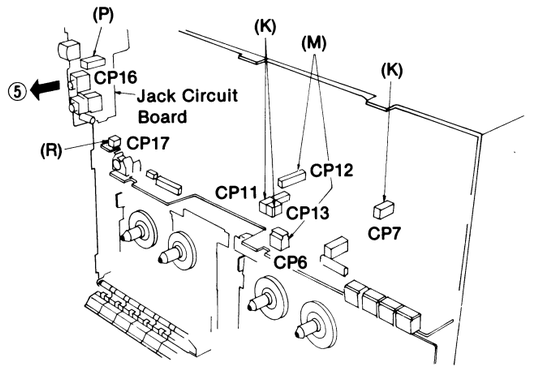


Fig. 10

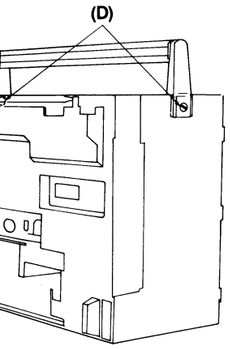


Fig. 3

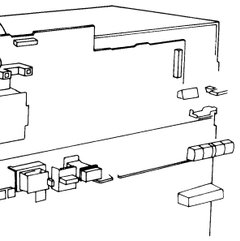
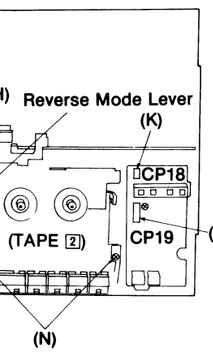
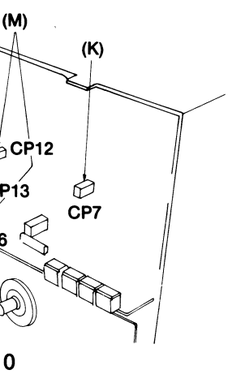


Fig. 6





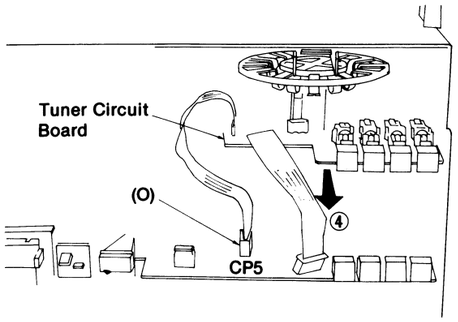


Fig. 11

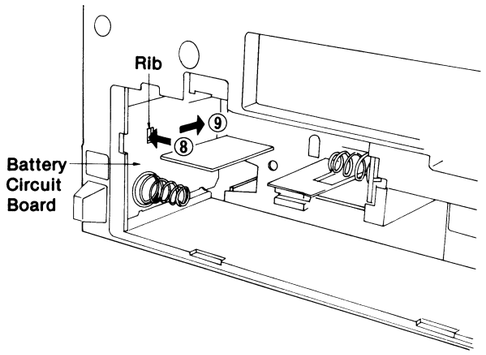


Fig. 13

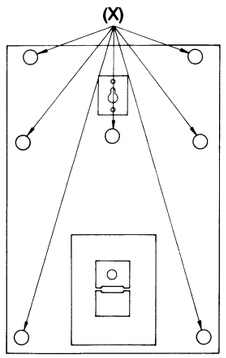


Fig. 15

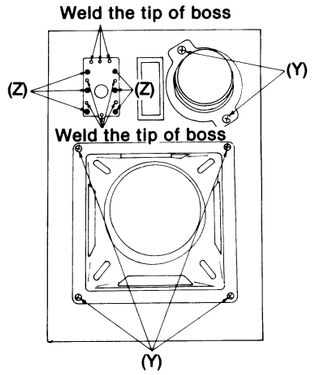


Fig. 16

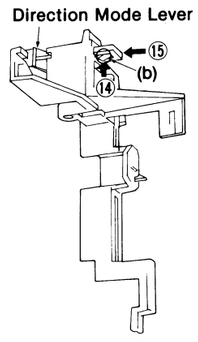


Fig. 18

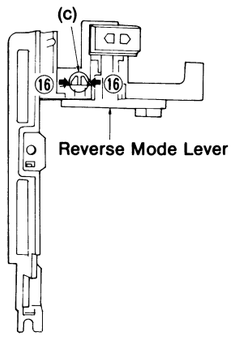


Fig. 19

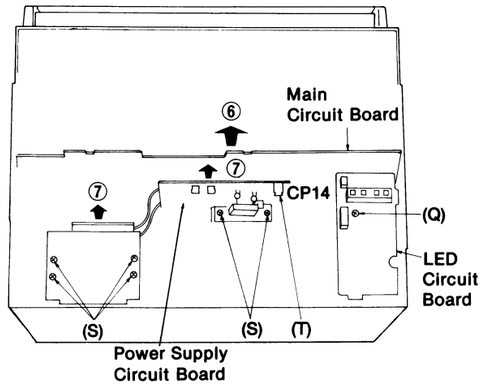


Fig. 12

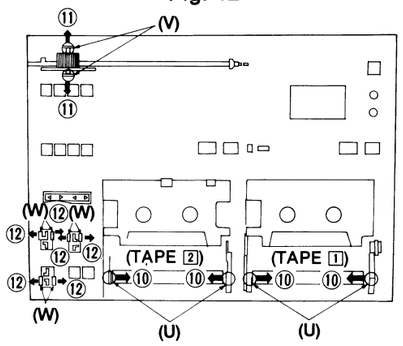


Fig. 14

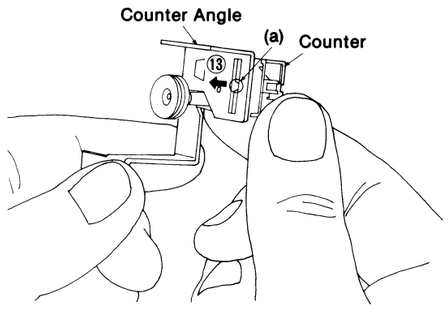


Fig. 17

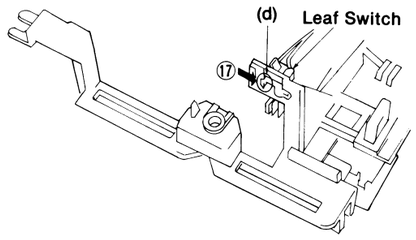


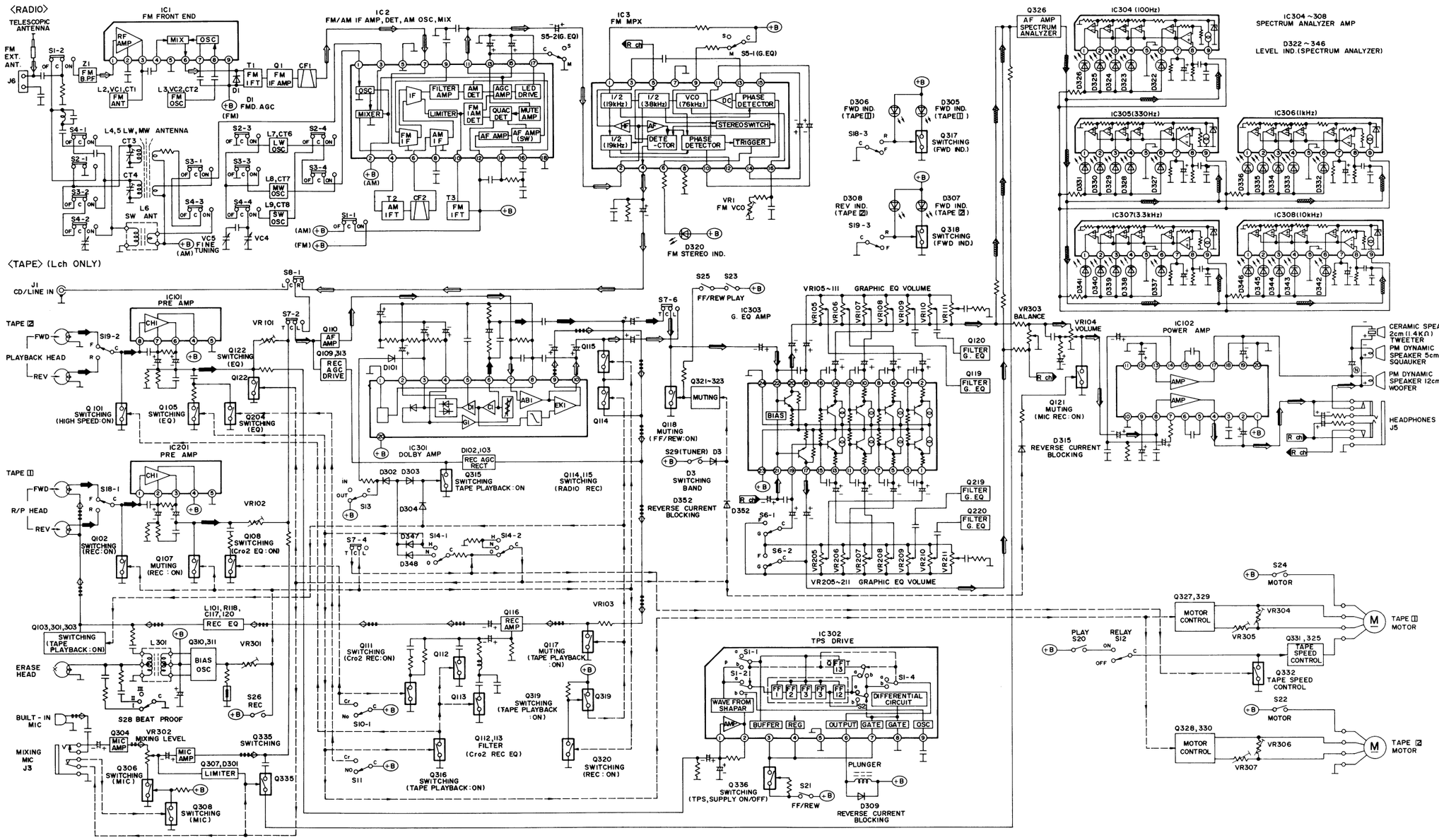
Fig. 20

Ref. No.	Shown in Fig. —.	To remove —.	Remove —.
1	1	Front Cabinet Ass'y	Screw (3×50) mm ..... (A)×7
2	2		Pull out the knob. (*1) ..... (B)×10
3	2		Push the Stop/Eject button (Tape 1 & 2) ..... (C)×2
4	3	Handle	Screw (4×9) mm ..... (D)×2
5	4	Graphic EQ Circuit Board	Screw (3×12) mm ..... (E)×1
6	4		Socket (CP1, CP2, CP3) ..... (F)×3
7	5		Push the G.EQ circuit board in the direction of arrow ① and remove the G.EQ circuit board of counter holder.
8	6		Pull out the board in the direction of arrow ②.
9	7	Reverse Mode Lever	Remove the rib with ⊖ screwdriver (Tape 1 & 2) ..... (G)×4
10	8	Reverse Mode Slidel/ Direction Mode Chassis	Screw (3×12) mm (Tape 1 & 2) ..... (H)×2
11	8	Mechanism Unit (Tape 1)	Counter Belt ..... (I)×1
12	8		Counter Ass'y ..... (J)×1
13	9		Remove the editing lever in the direction of arrow ③.
14	8, 10		Socket (CP7, CP11, CP13, CP18) ..... (K)×4
15	8		Screw (3×12) mm ..... (L)×2
16	8, 10	Mechanism Unit (Tape 2)	Socket (CP6, CP12, CP19) ..... (M)×3
17	8		Screw (3×12) mm ..... (N)×2
18	11	Tuner Circuit Board	Socket (CP5) ..... (O)×1
19	11		Pull out the tuner circuit board in the direction of arrow ④.
20	10	Jack Circuit Board	Socket (CP16) ..... (P)×1
21	10		Pull out the jack circuit board in the direction of arrow ⑤.
22	12	LED Circuit Board	Screw (3×12) mm ..... (Q)×1
23	10	Main Circuit Board	Socket (CP17) ..... (R)×1
24	12		Pull out the jack circuit board in the direction of arrow ⑥.
25	12	Power Supply Circuit Board and Power Transformer	Screw (3×12) mm ..... (S)×6
26	12		Socket (CP14) ..... (T)×1
27	12		Pull out the power supply circuit board and power transformer in the direction of arrow ⑦.
28	13	Battery Circuit Board	Push rib in the direction of the arrow ⑧ and remove battery circuit board in the direction of the arrow ⑨.
29	14	Cassette Compartment (Tape 1 & 2)	Remove the cassette compartment cover by pulling one side at a time toward the front of the set while pushing it with ⊖ screwdriver in the direction of the arrow ⑩. ..... (U)×4
30	14	Tuning knob and Dial Pointer	Remove the rib in the direction of the arrow ⑪. ..... (V)×2
31	14	Tape Selector knob (Tape 1 & 2), Editing Mode Knob	Remove the rib in the direction of the arrow ⑫. ..... (W)×6
32	15	Speaker Grill	Screw (3×50) mm ..... (X)×7
33	16	Woofer Speaker and Squawker Speaker	Screw (3×10) mm ..... (Y)×6
34	16	Tweeter Ass'y (*2)	Cut the tip of boss ..... (Z)×6
35	17	Counter	Remove the rib in the direction of the arrow ⑬. ..... (a)×1
36	18	Direction Mode Lever	Push the rib in the direction of arrow ⑭ and pull out the reverse mode lever in the direction of the arrow ⑮. ..... (b)×1
37	19	Reverse Mode Lever	Remove the rib in the direction of the arrow ⑯. ..... (c)×1
38	20	Leaf Switch	Remove the rib in the direction of the arrow ⑰. ..... (d)×1

(*1) When taking off a knob, wrap it with a cloth to prevent scratches.
(*2) When replacing the tweeter, attach the tweeter to the speaker cabinet by welding it to the remainder of the boss.

▼ Be sure to fold at the (▼) mark so that mark is on the outside.

BLOCK DIAGRAM



Notes:

1. S1~S4, S29: Band switch in "OFF" position. (Tuner circuit board)
2. S5: FM Mode switch in "MONO" position. (G. EQ circuit board)
3. S6~S8, S17: Equalizer mode/Function switch in "G. EQ/TAPE" position.
4. S10: Tape select switch in "NORMAL" position. (TAPE 1)
5. S11: Tape select switch in "NORMAL" position. (TAPE 2)
6. S12: Relay play switch in "OFF" position.
7. S13: Dolby NR switch in "OUT" position.
8. S14: Editing mode switch in "OFF/BUILT IN MIC" position.
9. S15: Power switch in "OFF" position.
10. S18: Direction switch in "FWD" position. (TAPE 1)
11. S19: Direction switch in "FWD" position. (TAPE 2)
12. S20: Playback switch. (TAPE 2)
13. S21: FF/REW switch. (TAPE 2)
14. S22: Motor switch. (TAPE 2)
15. S23: Playback switch. (TAPE 1)
16. S24: Motor switch. (TAPE 1)
17. S25: FF/REW switch. (TAPE 1)
18. S26: Record switch. (TAPE 1)
19. S27: AC/DC IN select switch in "DC" position.
20. S28: Beat proof switch.
21. VR1: FM VCO Adjustment VR.
22. VR101: Playback gain adjustment VR. Lch (TAPE 1)
23. VR102: Playback gain adjustment VR. Rch (TAPE 1)
24. VR103: Record/Playback gain adjustment VR. Lch
25. VR104, 204: Volume control VR.
26. VR105~111, 205~211: Graphic equalizer control VR.
27. VR201: Playback gain adjustment VR. Lch (TAPE 2)
28. VR202: Playback gain adjustment VR. Rch (TAPE 2)
29. VR203: Record/Playback gain adjustment VR. Rch
30. VR301: Bias current adjustment VR.
31. VR302: Mixing level control VR.
32. VR303: Balance control VR.
33. VR304: Tape speed adjustment VR, for high speed. (TAPE 1)
34. VR305: Tape speed adjustment VR, for normal speed. (TAPE 1)
35. VR306: Tape speed adjustment VR, for high speed. (TAPE 2)
36. VR307: Tape speed adjustment VR, for normal speed. (TAPE 2)

Tape (REC) Signal Line
Tape (PLAY) Signal Line
Main (Radio/Tape) Signal Line
Spectrum Analyzer Signal Line
Radio (FM) Signal Line

■ ALIGNMENT INSTR

	1. Set power switch to 2. Set volume control 3. Set equalizer mode 4. Set graphic equaliz 5. Set band switch to 6. Set balance control

■ LW, MW and SW A

	BAND	SIGNAL SWEEP / CONNECTI
(1)	MW	Fashion loop several turns wire and radi signal into lo receiver.
(2)	LW	〃
(3)	LW	〃
(4)	LW	〃
(5)	LW	〃
(6)	MW	〃
(7)	MW	〃
(8)	MW	〃
(9)	MW	〃
	(∗1) Cement antenna	
(10)	SW	Connect to t point ▼1 thr ceramic capa (10pF). Nega side to test p ▼2.
(11)	SW	
(12)	SW	

■ FM ALIGNMENT

	BAND	SIGNAL SWEEP / CONNECTI
(1)	FM	High side thr 0.001μF to te point ▼3. Ne side to test p ▼2.
(2)	FM	〃

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT.

1. Set power switch to ON.
2. Set volume control to maximum.
3. Set equalizer mode to G.EQ.
4. Set graphic equalizer to center.
5. Set band switch to LW, MW, SW or FM.
6. Set balance control to center.
7. Set function switch to TUNER or TAPE.
8. Set fine tuning to center.
9. Set FM mode Switch to STEREO.
10. Set power source voltage to 15V DC.
11. Output of signal generator should be no higher than necessary to obtain an output reading.

■ LW, MW and SW ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
		AM-IF ALIGNMENT					
(1)	MW	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455kHz (470kHz ...[E] only) 30% Mod. at 400Hz	Point of non-interference. (on/ about 600kHz)	Output meter across voice coil.	T2 (AM IFT)	Adjust for maximum output.
		LW-RF ALIGNMENT					
(2)	LW	〃	136kHz	Tuning capacitor fully closed.	〃	L7 (LW OSC Coil)	〃
(3)	LW	〃	297kHz	Tuning capacitor fully open.	〃	CT6 (LW OSC Trimmer)	〃
(4)	LW	〃	145kHz	Tune to signal.	〃	(＊1) L4 (LW ANT Coil)	Adjust for maximum output. Adjust L4 by moving coil bobbin along ferrite core.
(5)	LW	〃	285kHz	〃	〃	CT3 (LW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)～(5).
		MW-RF ALIGNMENT					
(6)	MW	〃	511kHz	Tuning capacitor fully closed.	〃	L8 (MW OSC Coil)	Adjust for maximum output.
(7)	MW	〃	1,650kHz	Tuning capacitor fully open.	〃	CT7 (MW OSC Trimmer)	〃
(8)	MW	〃	550kHz	Tune to signal.	〃	(＊1) L5 (MW ANT Coil)	Adjust for maximum output. Adjust L5 by moving coil bobbin along ferrite core.
(9)	MW	〃	1,500kHz	〃	〃	CT4 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (6)～(9).
	(＊1) Cement antenna bobbin with wax after completing alignment.						
		SW-RF ALIGNMENT					
(10)	SW	Connect to test point ▼1 through ceramic capacitor (10pF). Negative side to test point ▼2.	5.75MHz	Tuning capacitor fully closed.	〃	L9 (SW OSC Coil)	Adjust for maximum output.
(11)	SW		18.8MHz	Tuning capacitor fully open.	〃	CT8 (SW OSC Trimmer)	〃
(12)	SW		5.9MHz	Tune to signal.	〃	L6 (SW ANT Coil)	Adjust for maximum output. Repeat steps (10)～(12).

■ FM ALIGNMENT

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
		FM-IF ALIGNMENT					
(1)	FM	High side thru. 0.001μF to test point ▼3. Negative side to test point ▼2.	10.7MHz (SWP.)	Point of non-interference. (on/ about 90MHz)	Connect vert. amp. of scope to test point ▼4. Negative side to test point ▼5.	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 3.)
(2)	FM	〃	〃	〃	〃	T3 (FM-2nd IFT)	Adjust for maximum amplitude. (Refer to fig. 4.)

	BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY				
		FM-RF ALIGNMENT					
(3)	FM	Connect to test point ▼1 through FM dummy antenna. Negative side to test point ▼2.	86.2MHz (87.4MHz... [G] only)	Variable capacitor fully closed.	Output meter across voice coil.	L3 (FM OSC Coil)	(＊2) Adjust for maximum output.
(4)	FM		109.2MHz (108.3MHz... [G] only)	Variable capacitor fully open.	〃	CT2 (FM OSC Trimmer) (CT9... [I] [G] only)	〃
(5)	FM		106MHz	Tune to signal.	〃	CT1 (FM ANT Trimmer)	(＊2) Adjust for maximum output. Repeat steps (3)～(5).
	CT2 adjustment to center before FM-RF ALIGNMENT. (For Itary, Finland and F.R. Germany) (＊2) Three output responses will be present; proper tuning is the center frequency.						

■ SEPARATION ALIGNMENT

	ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
(1)	Adjustment of pilot signal	98 MHz, 60 dB (CW) Connect to test point ▼1 through FM dummy antenna. Negative side to test point ▼2.	▼6... (+) ▼7... (−)	VR1	19 kHz	Adjust VR1, for 19 kHz (±50Hz) reading on electronics counter.

■ TAPE ADJUSTMENT

	ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
(1)	Azimuth	QZZCFM (8kHz, −20dB)	SP OUT (AC voltmeter & Oscilloscope)	Maximum output.	Azimuth screw (FWD, REV)	Playback mode Mode switch → STEREO/I (Refer to Fig. 5)
(2)	Rec Bias Current	——	▼9...(+) ▼10...(−)	Tape selector Normal... 18±0.5mV CrO_2.....25±15mV	VR301	FM Mode B.P → Mono/II Tape selector → Normal Function selector → Radio (AM) (Refer to Fig. 10)
(3)	Playback Gain (Tape 1 & 2)	QZZCLA (315Hz, 0dB)	TP3 ▼L...(+) Lch ▼E...(−) ▼R...(+) Rch	35±5mV	(Tape 1) VR101...Lch VR102...Rch (Tape 2) VR201...Lch VR202...Rch	Playback mode (FWD and REV playback)
(4)	Record/ Playback Gain	Line IN f=1kHz, −10dB	Line OUT	Output voltage ...0±1dB	VR103 (Lch) VR203 (Rch)	1. Apply a −10dB 1kHz signal from the line input terminal. 2. Measure the output voltage of line output terminals. 3. Then, with the unit in the record mode and, record the signal. 4. Playback the recorded part, and measure the output voltage of line output terminals. 5. Compare the output volatage measured in items 2 and 4, and adjust so there is no difference in the level. (Adjust to obtain 0±1dB.)

■ TAPE SPEED ADJUSTMENTTAPE ADJUSTMENT

	ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	REMARKS
(1)	Tape speed adjustment for high speed. Tape 1 & 2	QZZCWAT (3kHz) Use QZZCWC (1.5kHz) tape when using a wow/flutter meter.	SP OUT	VR306 (Tape 2) VR304 (Tape 1)	1. Short TP 1 as shown in the Fig. 2 above to enter the hight speed mode. Tape 2...6040±40Hz (3020±20Hz) Tape 1...−30±30Hz of tape speed of tape 2 (Refer to Fig. 6 & 7 when using a wow/flutter meter)

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	REMARKS
(2) Tape speed adjustment for normal speed. Tape 1 & 2	QZZCWAT (3kHz)	SP OUT	VR307 (Tape 2) VR305 (Tape 1)	1. Open TP 1 and set the tape speed to normal. 2. Tape 2 ... 3030±20Hz Tape 1 ... −15±15Hz of the speed of tape 2 (Refer to Fig. 8 & 9 when using a wow/flutter meter)

Note:

1. Adjust the tape speed by first adjusting the hight speed. Do not adjust the hight speed after adjusting the normal speed. (The normal speed changes if the hight speed is adjusted afterwards)
2. Adjust the tape advance speed in the following order: tape 2 hight, normal speed; tape 1 hight, normal speed.

■ ALIGMENT POINT

* Please refer to Circuit Board and Wiring Connection Diagram of test points location.

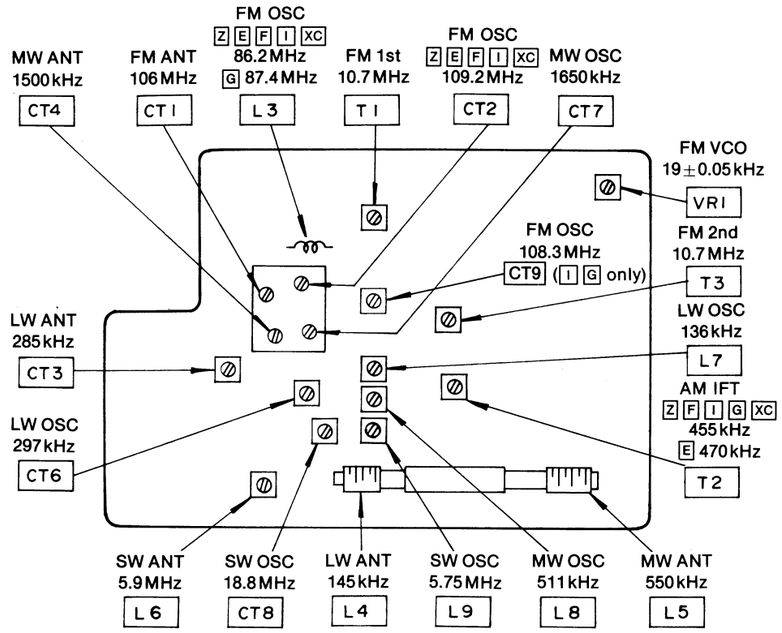


Fig. 1

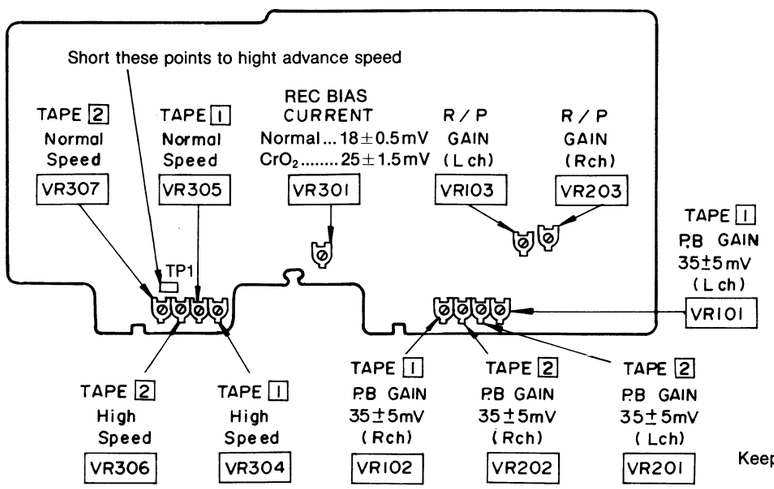


Fig. 2

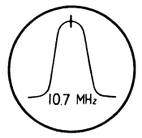


Fig. 3

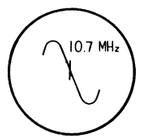
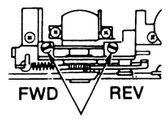


Fig. 4



Azimuth Screw

Fig. 5

• NEEDLE POSITION OF THE DRIFT METER (High speed)

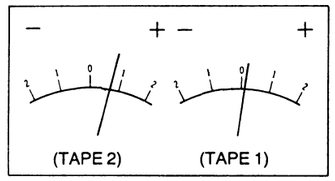


Fig. 6 Fig. 7

• NEEDLE POSITION OF THE DRIFT METER (Normal speed)

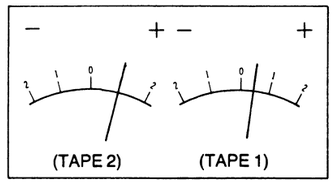
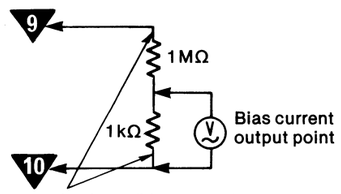


Fig. 8 Fig. 9

Note: Short TP 1 to adjust the hight speed mode.

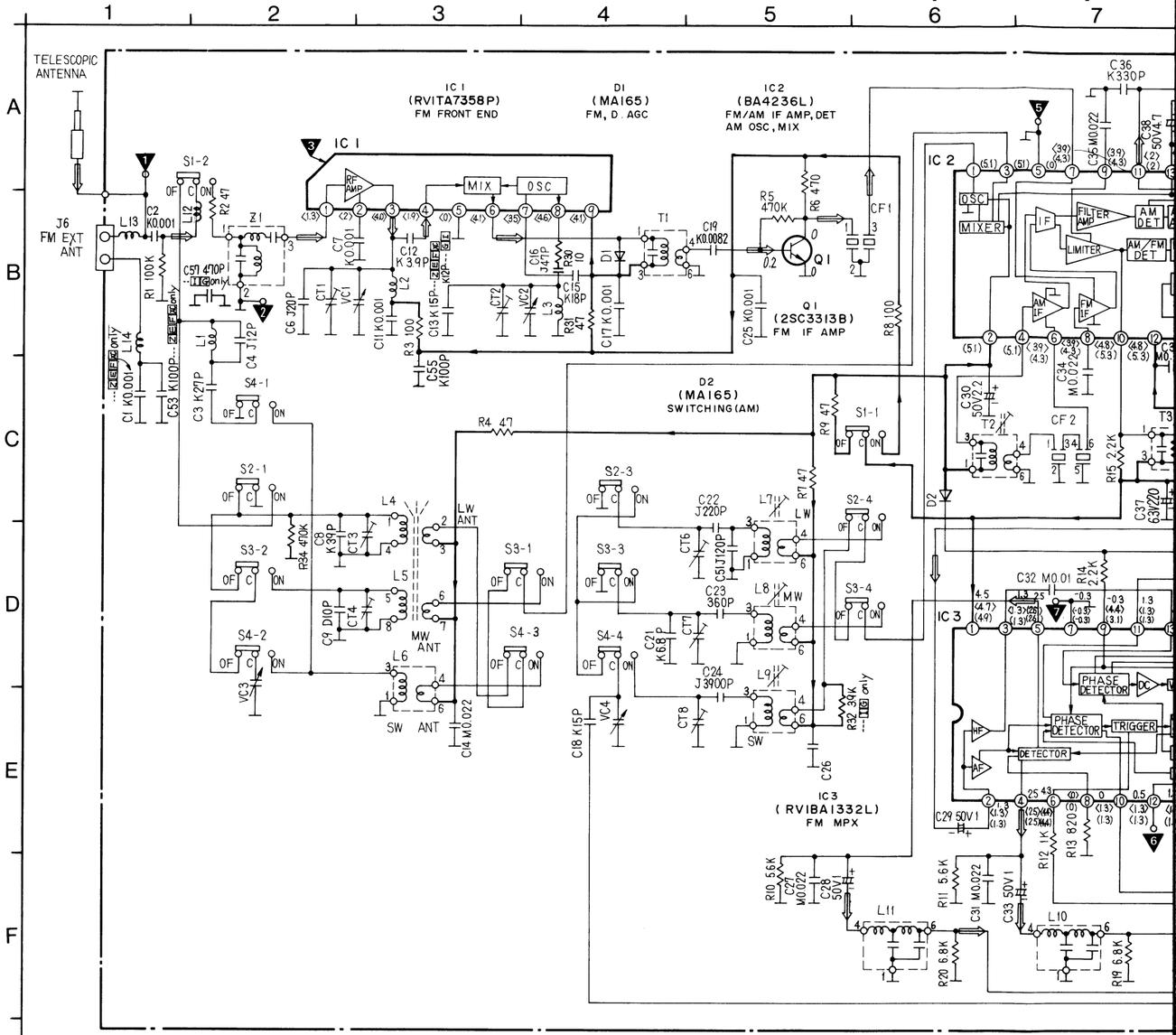


Keep these cords short. (Lien capacitance: 3pF of less)

• In order not to influence the bias oscillation, divide the voltage with 1MΩ and 1kΩ resistors, and measure the voltage across the 1kΩ resistor.

Fig. 10

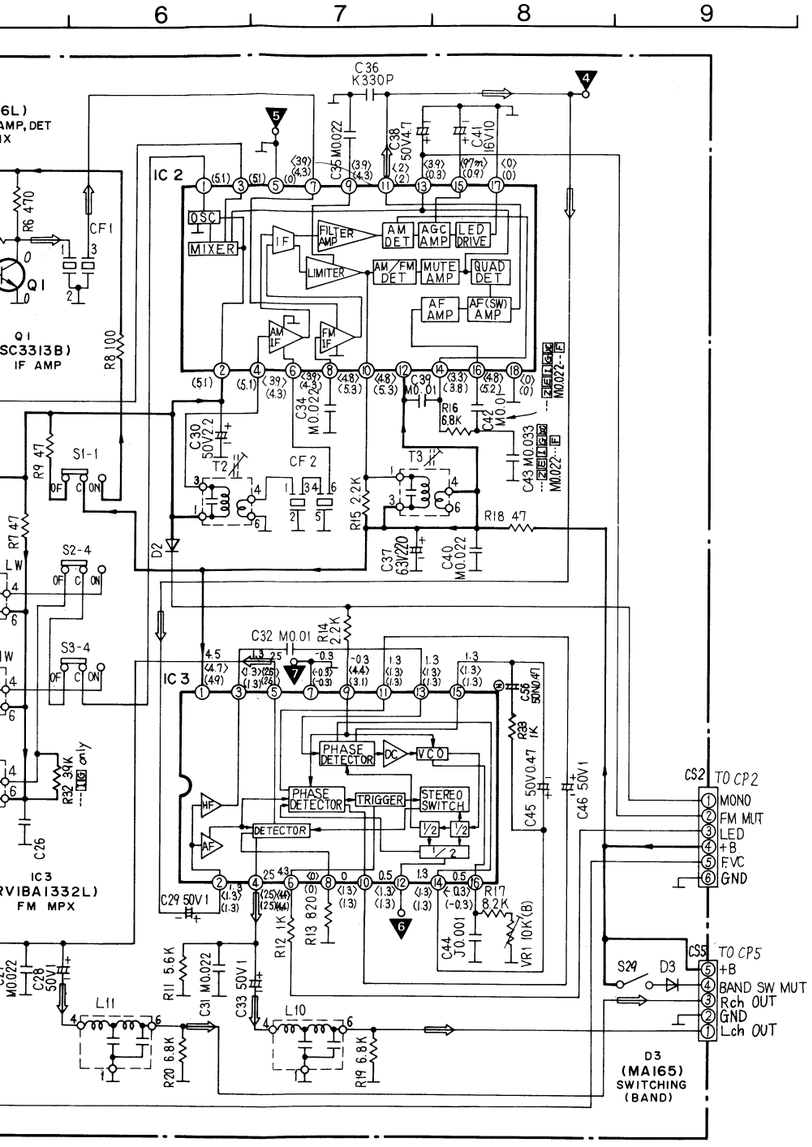
SCHEMATIC DIAGRAM (TUNNER)


TELESCOPIC ANTENNA
J6 FM EXT ANT
IC 1 (RVITA7358P) FM FRONT END
D1 (MA165) FM, D AGC
IC2 (BA4236L) FM/AM IF AMP, DET AM OSC, MIX
Q1 (2SC3313B) FM IF AMP
D2 (MA165) SWITCHING (AM)
IC 2
IC 3 (RVIBA1332L) FM MPX
LW ANT
MW ANT
SW ANT

Notes:

1. S1-1, S1-2, S2-1, S2-2, S2-3, S2-4, S3-1～S3-4, S4-1～S4-4, S29:
   Band switch in "OFF" position.
   (S1...FM, S2...LW, S3...MW, S4...SW, S29...Band muting)
2. VR1: FM VCO Adjustment VR.
3. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
   〈 〉...FM, ( )...AM
4. Described in schematic diagram are two types of numbers; the supply parts number and production parts number for transistors and diodes.
   One type number is used for supply parts number and production parts number which they are identical.
   e.g. Q1
   2SC2412NRTB, LNSTB ← Production parts number
   (2SC2412) ← Supply parts number
5. THe supply
   replacemer
6. The mark (
   • **This schem**
   with the de

AGRAM (TUNNER)



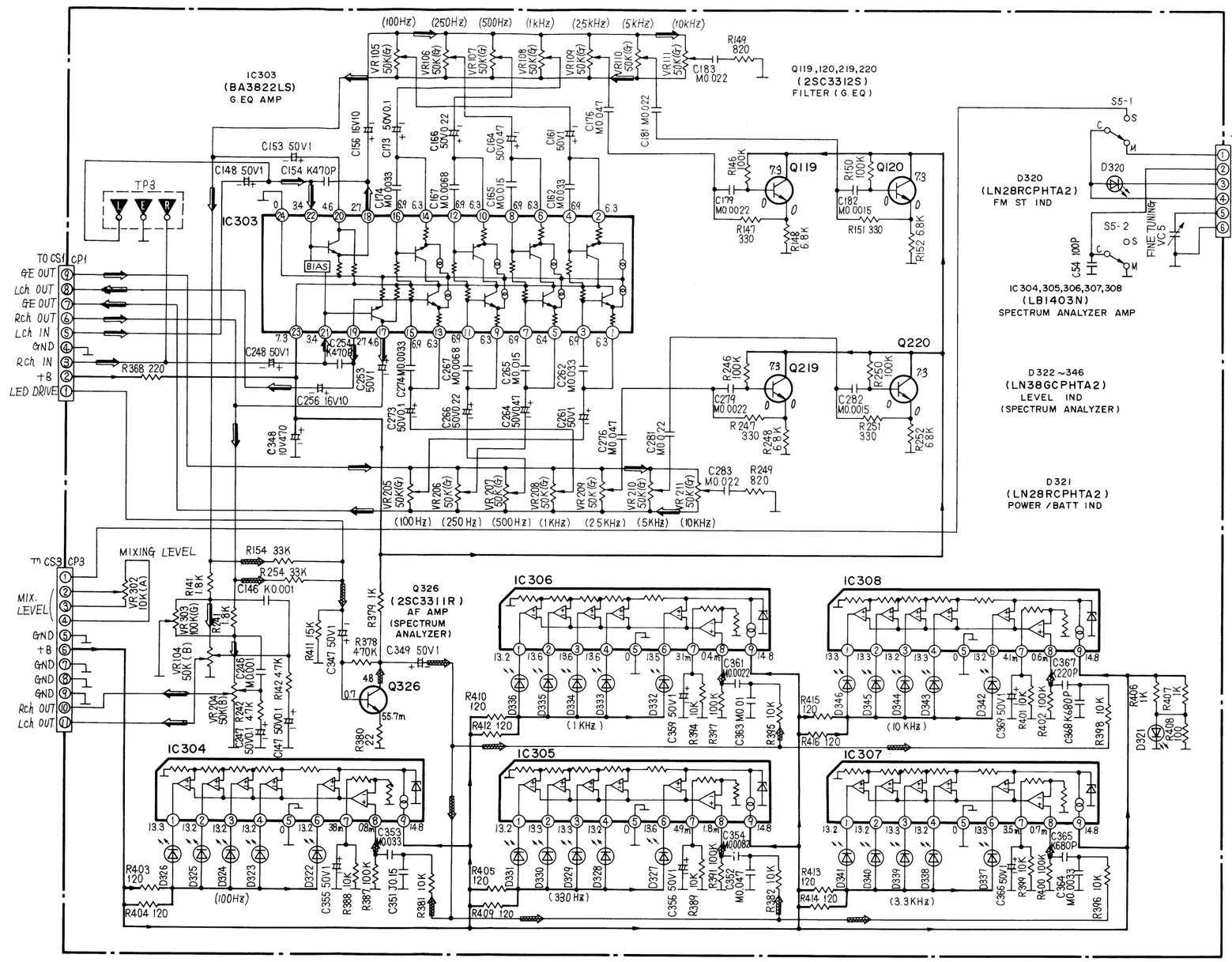
c diagram are two types of
arts number and production parts
and diodes.
sed for supply parts number and
er which they are identical.

STB ← **Production parts number**
——— **Supply parts number**

5. THe supply parts number is described alone in the replacement parts list.
6. The mark (▼) shows test point. e.g. ▼ =test point 1.
- **This schematic diagram may be modified at any time with the development of new technology.**

+Ⓑ Voltage Line
Radio (FM) Signal Line

SCHEMATIC DIAGRAM (GRAPHIC EQUALIZER)



Notes:

1. S5-1, S5-2: FM Mode switch in "MONO position. (S/I...STEREO/I, M/II...MONO/II)
2. VR104, 204: Volume control VR.
3. VR105~111, 205~211: Graphic equalizer control VR.
4. VR302: Mixing level adjustment VR.
5. VR303: Balance control VR.
6. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery. No. mark...Playback
7. Described in schematic diagram are two types of numbers; the supply parts number and production parts number for transistors and diodes. One type number is used for supply parts number and production parts number which they are identical.
   e.g. Q1
   2SC2412NRTB, LNSTB ← Production parts number
   (2SC2412) ←——— Supply parts number
8. The supply parts number is described alone in the replacement parts list.
9. The mark (▼) shows test point. e.g. ▼ =test point L.
- **This schematic diagram may be modified at any time with the development of new technology.**

+Ⓑ Voltage Line
Spectrum Analyzer Signal Line
Main (Radio/Tape) Signal Line

Notes:

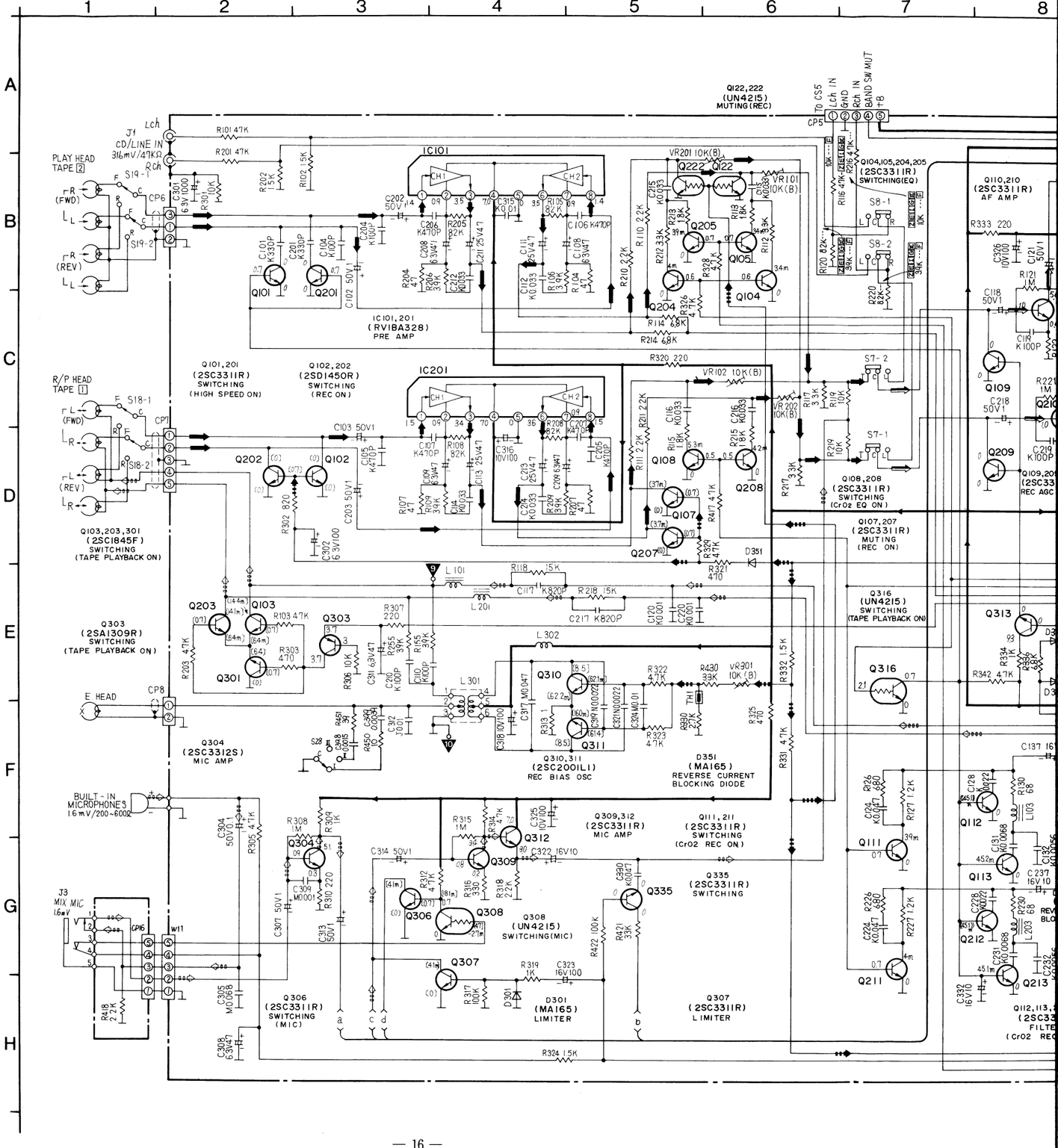
1. S6-1, S6-2, S7-1～S7-6, S8-1, S8-2, S17: Equalizer mode/Function switch in "G. EQ/TAPE" position. (S6...EQUALIZER MODE, S7...TAPE, S8...TUNER, S9...CD/LINE, S17...FUNCTION MUTING) ※S9 No Circuit
2. S10-1, S10-2: Tape select switch in "NORMAL" position. (TAPE 1) (Cr...CrO_2, No...NORMAL)
3. S11: Tape select switch in "NORMAL" position. (TAPE 2) (Cr...CrO_2, No...NORMAL)
4. S12: Relay play switch in "OFF" position.
5. S13: Dolby NR switch in "OUT" position.
6. S14-1, S14-2: Editing mode switch in "OFF/BUILT IN MIC" position. (H...HIGH, N...NORMAL, O...OFF/BUILT IN MIC)
7. S15: Power switch in "OFF" position. (1...ON, 3...OFF)
8. S16: Voltage select switch. (for Saudi Arabia only.)
9. S18-1～S18-3: Direction switch in "FWD" position. (TAPE 1) (F...FWD, R...REV)
10. S19-1～S19-4: Direction switch in "FWD" position. (TAPE 2) (F...FWD, R...REV)
11. S20: Playback switch. (TAPE 2)
12. S21: FF/REW switch. (TAPE 2)
13. S22: Motor switch. (TAPE 2)
14. S23: Playback switch. (TAPE 1)
15. S24: Motor switch. (TAPE 1)
16. S25: FF/REW switch. (TAPE 1)
17. S26: Record switch. (TAPE 1)
18. S27: AC/DC IN select switch in "DC" position.
19. S28: Beat proof switch.
20. VR101: Playback gain adjustment VR. Lch (TAPE 1)
21. VR102: Playback gain adjustment VR. Rch (TAPE 1)
22. VR103: Record/Playback gain adjustment VR. Lch
23. VR201: Playback gain adjustment VR. Lch (TAPE 2)
24. VR202: Playback gain adjustment VR. Rch (TAPE 2)
25. VR203: Record/Playback gain adjustment VR. Rch
26. VR301: Bias current adjustment VR.
27. VR304: Tape speed adjustment VR, for high speed. (TAPE 1)
28. VR305: Tape speed adjustment VR, for normal speed. (TAPE 1)
28. VR306: Tape speed adjustment VR, for high speed. (TAPE 2)
29. VR307: Tape speed adjustment VR, for normal speed. (TAPE 2)
30. DC voltage measurements are taken with electronics voltmeter from negative terminal of battery.
    [ ]...Record, (( ))...Normal tape speed, 《 》...High tape speed, [[ ]]...T.P.S.
    No mark...Playback
31. Battery current: No signal 248mA
    Maximum output (radio) 2.3A
    Maximum output (tape) 2.6A
32. Described in schematic diagram are two types of numbers; the supply parts number and production parts number for transistors and diodes.
    One type number is used for supply parts number and production parts number which they are identical.
    e.g. Q1
    2SC2412NRTB, LNSTB ← Production parts number
    (2SC2412) ← Supply parts number
33. The supply parts number is described alone in the replacement parts list.
34. The mark (▼) shows test point. e.g. ▼1 = test point 1.
35. Important safety notice
    Components identified by ⚠ mark have special characteristics important for safety.
    When replacing any of these components, use only manufacturer's specified parts.

- **This schematic diagram may be modified at any time with the development of new technology.**

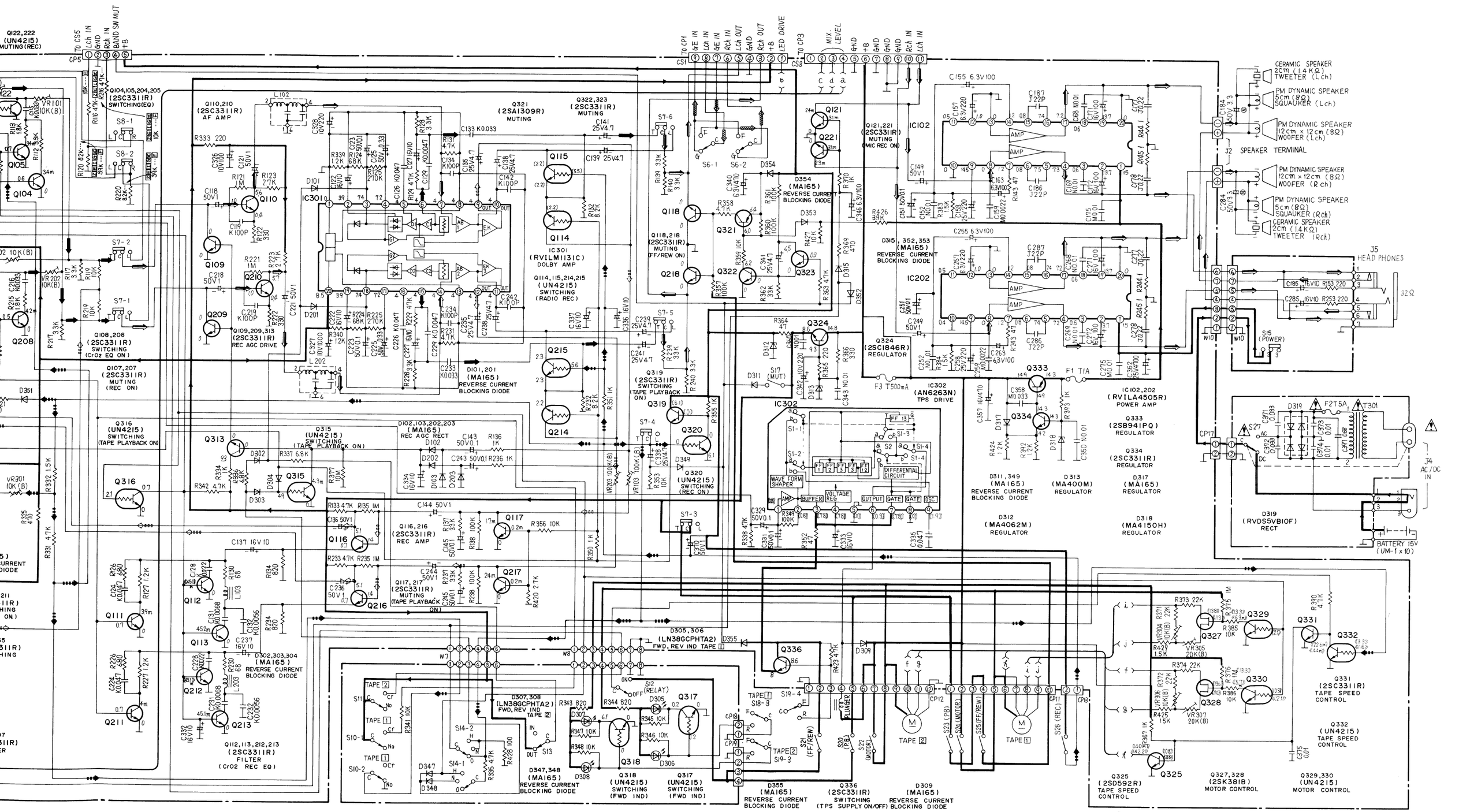
→ +⑧ Voltage Line
⇨ Tape (REC) Signal Line
➡ Tape (PLAY) Signal Line
⇨ Main (Tape/Radio) Signal Line
▨⇨ Spectrum Analyzer Signal Line
■■➡ REC/PLAY Signal Line

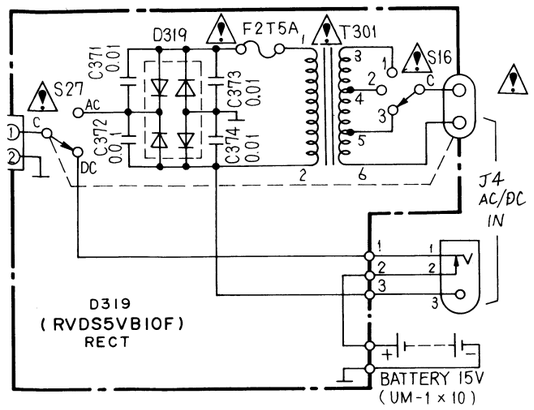
Over-all frequency response
LINE IN −22dB
Dolby NR. IN
SPEAKER OUT (VR max)

Normal	100Hz	0±6dB
	1kHz	0dB
	10kHz	−4±6dB
CrO_2	100Hz	0±6dB
	1kHz	0dB
	10kHz	−4±6dB

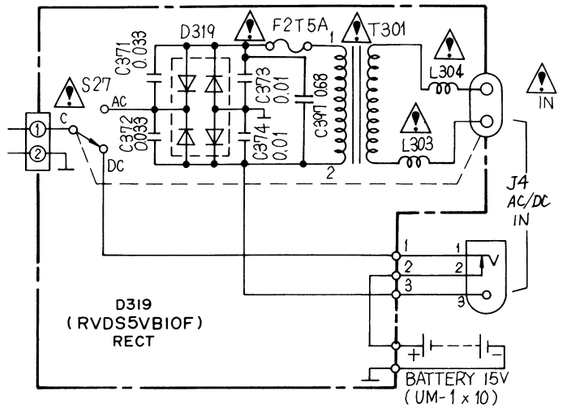


SCHEMATIC DIAGRAM (AUDIO)





(For Saudi Arabia.)



(For Italy, Finland and F.R. Germany.)

ELECTRICAL PARTS LOCATION

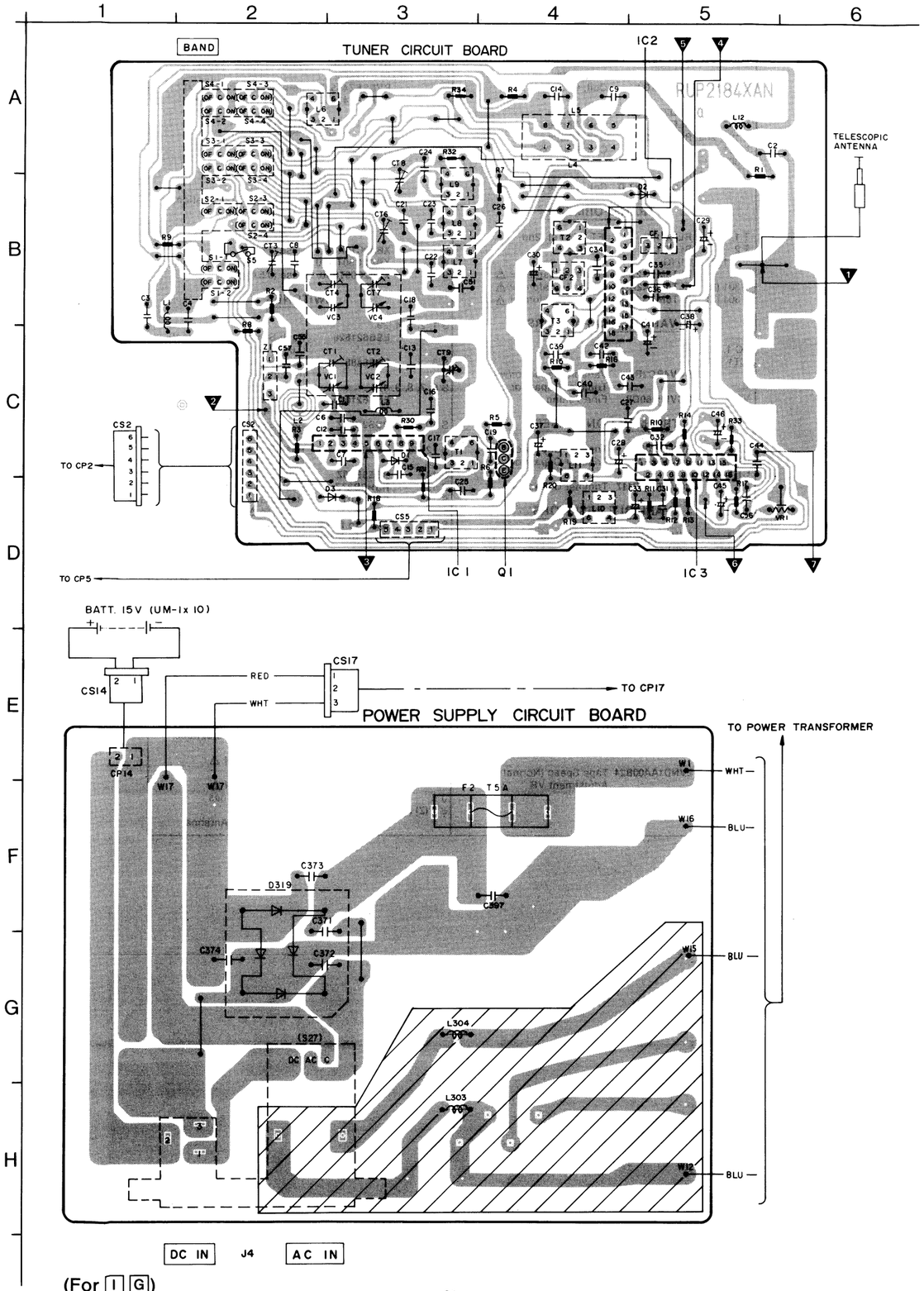
REPLACEMENT PARTS LIST

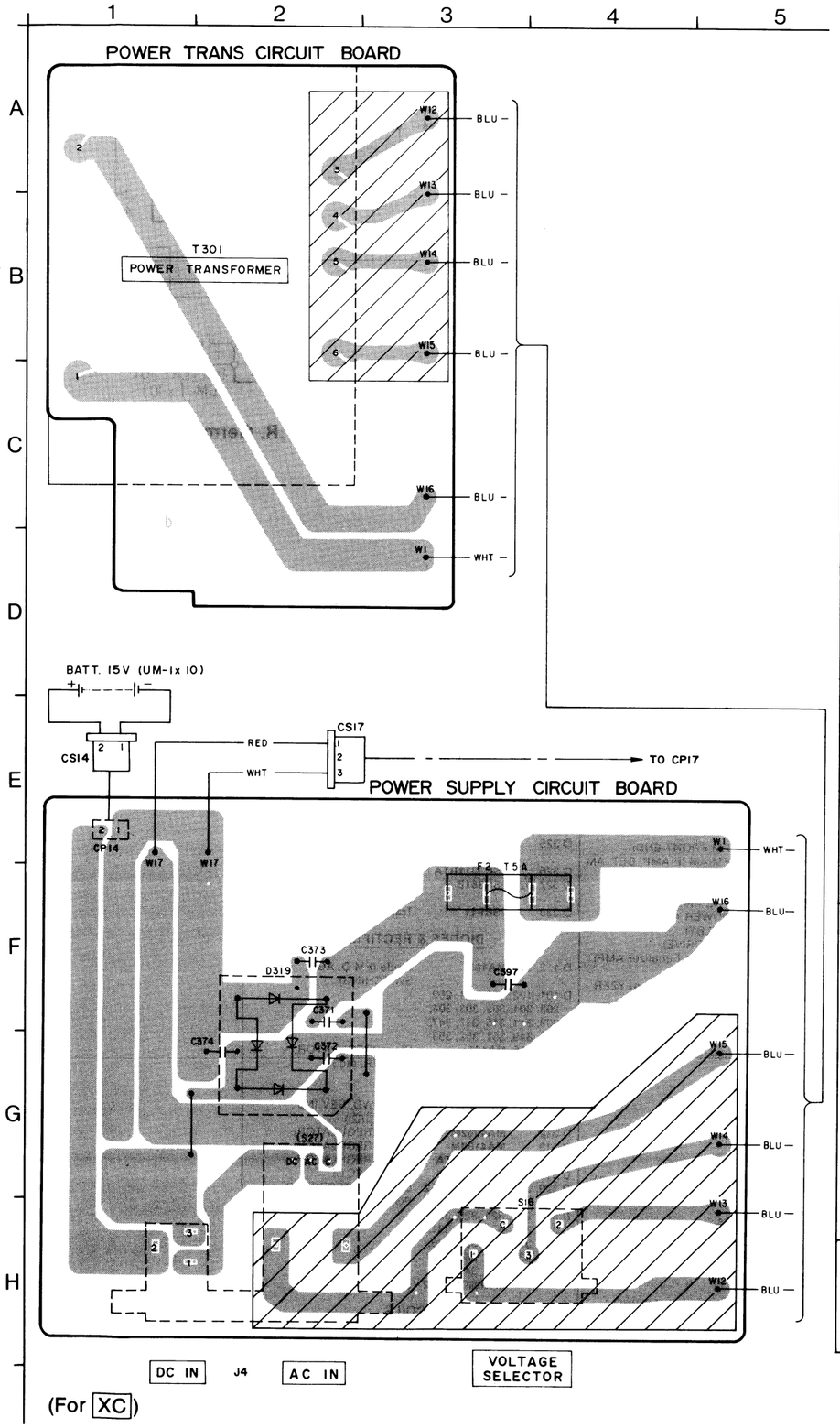
Important safety notice
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

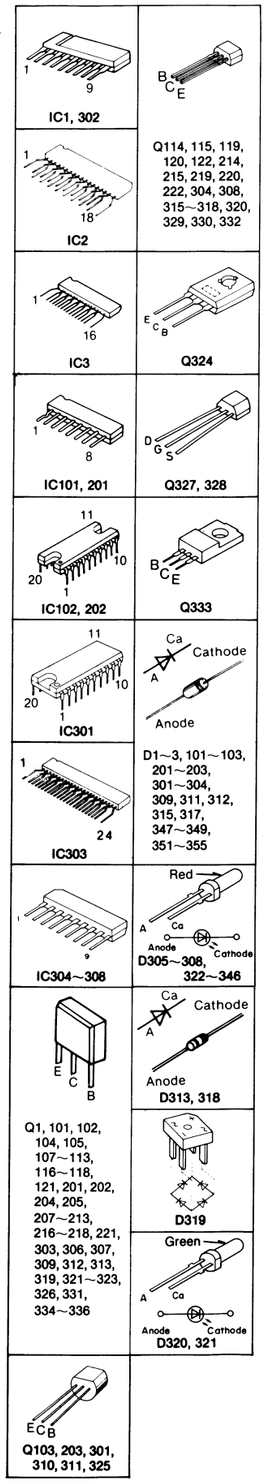
(Z).....For all European areas except (E)(F)(I)(G).
(E).....For United Kingdom.
(F).....For France.
(I).....For Italy and Finland.
(G).....For F.R. Germany.
(XC).....For Saudi Arabia.

Ref. No.	Part No.	Part Name & Description
	INTEGRATED CIRCUITS	
IC 1	**RViTA7358P**	IC (FM FRONT END)
IC 2	**BA4236L**	IC (FM/AM IF AMP, DET, AM OSC, MIX)
IC 3	**RViBA1332L**	IC (FM MPX)
IC 101, 201	**RViBA328**	IC (PRE AMP)
IC 102, 202	**RViLA4505R**	IC (POWER AMP)
IC 301	**RViLM1131C**	IC (DOLBY)
IC 302	**AN6263N**	IC (TPS DRIVE)
IC 303	**BA3822LS**	IC (Graphic Equalizer AMP)
IC 304, 305, 306, 307, 308	**LB1403N**	IC (SPECTRUM ANALYZER AMP)
	TRANSISTORS	
Q 1	**2SC3313BTA**	Transistor (FM IF AMP)
Q 101, 104, 105, 107, 108, 109, 110, 111, 112, 113, 116, 117, 118, 121, 201, 204, 205, 207, 208, 209, 210, 211, 212, 213, 216, 217, 218, 221, 306, 307, 309, 312, 313, 319, 322, 323, 331, 334, 335, 336	**2SC3311RTA**	Transistor (SWITCHING, AF AMP, etc.)
Q 102, 202	**2SD1450R**	Transistor (SWITCHING)
Q 103, 203, 301	**2SC1845F**	Transistor (SWITCHING)
Q 114, 115, 122, 214, 215, 222, 308, 315, 316, 317, 318, 320, 329, 330, 332	**UN4215TA**	Transistor (SWITCHING, MOTOR CONTROL, TAPE SPEED CONTROL)
Q 119, 120, 219, 220	**2SC3312STA**	Transistor (FILTER)
Q 303, 321	**2SA1309RTA**	Transistor (SWITCHING, MUTING)
Q 304	**2SC3312STA**	Transistor (MIC AMP)
Q 310, 311	**2SC2001L1TA**	Transistor (REC BIAS OSC)
Q 324	**2SC1846R**	Transistor (REGULATOR)
Q 325	**2SD592RTA**	Transistor (TAPE SPEED CONTROL)
Q 326	**2SC3311RTA**	Transistor (AF AMP)
Q 327, 328	**2SK381B**	Transistor (MOTOR CONTROL)
Q 333	**2SB941**	Transistor (REGULATOR)
	DIODES & RECTIFIERS	
D 1, 2, 3	**MA165**	Diode (FM D. AGC, SWITCHING)
D 101, 102, 103, 201, 202, 203, 301, 302, 303, 304, 309, 311, 315, 317, 347, 348, 349, 351, 352, 353, 354, 355	**MA165**	Diode (REGULATOR, LIMITER, etc.)
D 305, 306, 307, 308	**LN38GCPHTA2**	LED (FWD, REV IND. TAPE [1]/[2])
D 312	**MA4062MTA**	Diode (REGULATOR)
D 313	**MA4100M**	Diode (REGULATOR)
D 318	**MA4150HTA**	Diode (REGULATOR)
D 319	**RVDS5VB10**	Diode (RECT.)
D 320, 321	**LN28RCPHTA2**	LED (FM STEREO IND. POWER/BATT IND.)
D 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346	**LN38GCPHTA2**	LED (LEVEL IND.)
	COILS	
L 1, 12	**RLQY30S1**	Coil, Choke
L 3 (Z) (E) (F) (XC)	**RLD4Y53**	Coil, FM OSC
L 3 (G) (I)	**RL04N227-0**	Coil, Choke
L 4, 5	**RLF6W151**	Coil, MW•LW Antenna
L 6	**RLA3B41**	Coil, SW Antenna

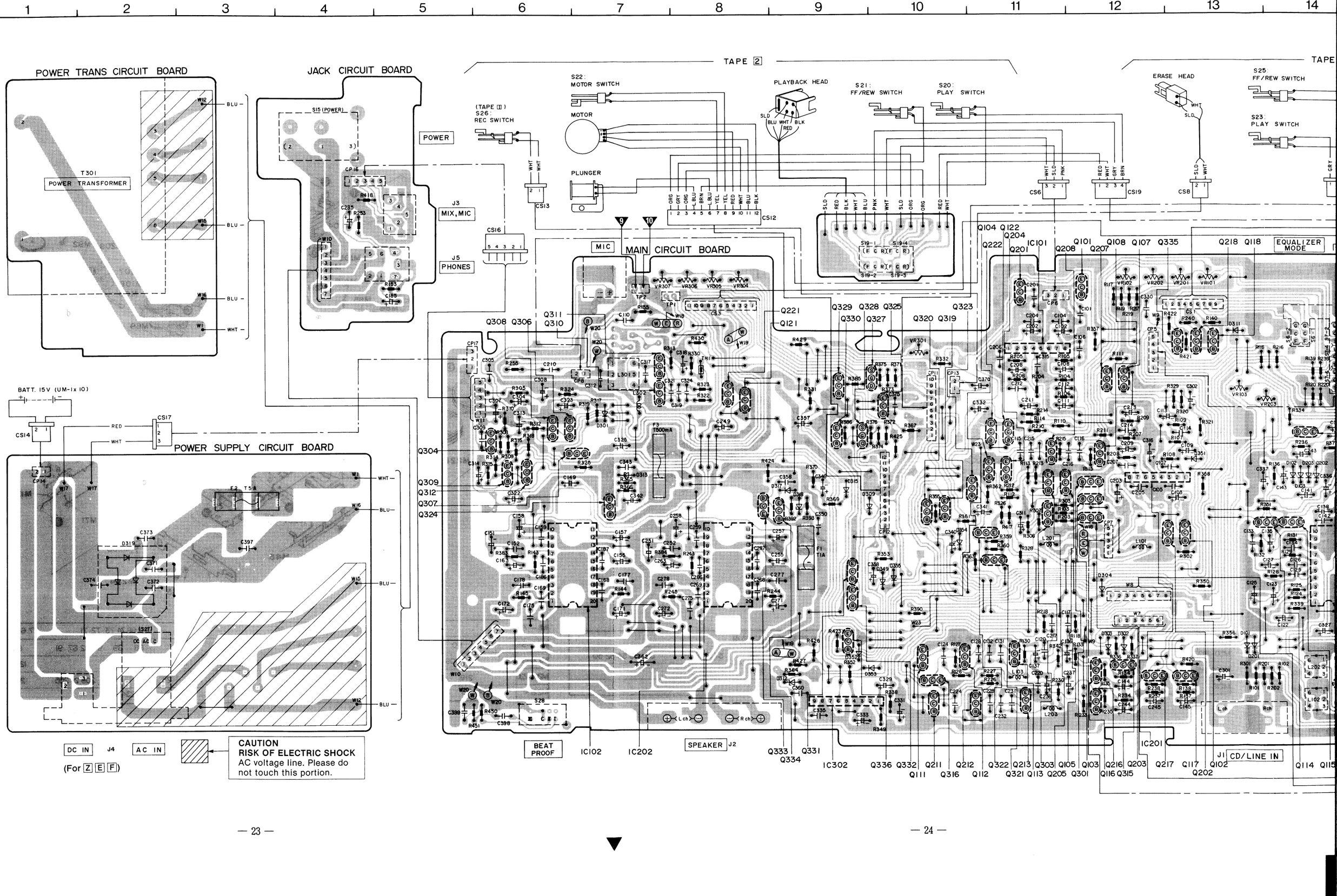
Ref. No.	Part No.	Part Name & Description
L 7	**RL01B12**	Coil, LW OSC
L 8	**RL02B108**	Coil, MW OSC
L 9	**RL03B87**	Coil, SW OSC
L 10, 11	**RLE5031**	Coil, Filter
L 13, 14	**RLQY11G4**	Coil, Choke
L 101, 201	**RLQZM473J**	Coil, Choke
L 102, 202	**RLE9B2**	Coil, Choke
L 103, 203	**RLQZB822K**	Coil, Choke
L 301	**RL08C4**	Coil, Bias OSC
L 302	**RLQZB470K**	Coil, Choke
L 303, 304 (I) (G)	**RLQZV470KT-D**	Coil, Choke ⚠
	TRANSFORMERS	
T 1, 3	**RLi4B153**	IFT, FM 1st, 2nd
T 2	**RLi2B153**	IFT, AM
T 301 (Z) (F) (I) (G)	**RLT5M5G2A-X**	Power Transformer ⚠
T 301 (E)	**RLT5M5A2A-X**	Power Transformer ⚠
T 301 (XC)	**RLT5M5G1A-X**	Power Transformer ⚠
	VARIABLE CAPACITORS	
VC 1, 2, 3, 4 (CT1, 2, 4, 7)	**RCV4RC2RA**	Variable Capacitor/with Trimmer Capacitor
VC 5	**RCVMH60C8**	Fine Tuning
	TRIMMER CONDENSERS	
CT 3, 6	**RCVTZ20F**	Trimmer Capacitor
CT 8	**RCV10AF1**	Trimmer Capacitor
CT 9 (G) (I)	**RCVCTZ53C117**	Trimmer Capacitor
	VARIABLE RESISTORS	
VR 1	**EVND4AA00B14**	FM VCO Adjustment VR
VR 101, 102, 201, 202, 301, 304, 306	**EVND1AA00B14**	Playback Gain, Rec Bias, Tape Speed (High Speed) Adjustment VR
VR 103, 203	**EVND1AA00B15**	R/P Gain Adjustment VR
VR 104, 204	**EWATF2T50B54**	Volume Control VR
VR 105, 106, 107, 108, 109, 110, 111, 205, 206, 207, 208, 209, 210, 211	**EWATA6C95G54**	Graphic Equalizer Control VR
VR 302	**EWATL2C95A14**	Mixing Level Control VR
VR 303	**EWATJ2C95G15**	Balance Control VR
VR 305, 307	**EVND1AA00B24**	Tape Speed (Normal Speed) Adjustment VR
	CERAMIC FILTERS	
CF 1	**RVF107WDZ**	Ceramic Filter (10.7MHz)
CF 2 (Z) (F) (I) (G) (XC)	**RVFSFZ455JZ**	Ceramic Filter (455kHz)
CF 2 (E)	**RVFSFZ470JL**	Ceramic Filter (470kHz)
	THERMISTOR	
TH 1	**RRT202**	Thermistor
	FILTER	
Z 1	**RXABPMB6AW**	Component Combinations
	FUSES	
F 1	**XBA2C10RB0U**	Fuse (1A) ⚠
F 2	**XBA2C50TB0U**	Fuse (5A) ⚠
F 3	**XBA2C05TB0U**	Fuse (0.5A) ⚠
	SWITCHES	
S 1, 2, 3, 4, 29	**ESB621626**	Push Switch (Band Select) (Tuner Circuit Board)
S 5	**ESB6488**	Push Switch (FM Mode) (G. Equalizer Circuit Board)
S 6, 7, 8, 9, 17	**ESB621625**	Push Switch, Equalizer Mode/Function
S 10, 11	**RSS2B57Z**	Slide Switch, Tape Selector TAPE [1], TAPE [2]
S 12, 13	**ESB6488**	Push Switch, Relay Play, Dolby NR
S 14	**RSS3B38Z**	Slide Switch, Editing Mode
S 15	**RSH2B37Z**	Push Switch, Power ⚠
S 16	**RSR3A01Y**	Rotary Switch, Voltage Selector ⚠
S 18	**Refer to M109**	Switch, Direction (TAPE [1])
S 19	**Refer to M109**	Switch, Direction (TAPE [2])
S 20, 22	**RFA75ZA**	Switch, Playback, Motor (TAPE [2])
S 21	**RFA52Z**	Switch, FF/REW (TAPE [2])
S 23, 24	**RFA75ZA**	Switch, Playback, Motor (TAPE [1])
S 25	**RFA52Z**	Switch, FF/REW (TAPE [1])
S 26	**RSH1A68ZA-U**	Push Switch, Record (TAPE [1])
S 28	**RSS3B38YA-Q**	Slide Switch, Beat Proof
	JACKS	
J 1	**RJF1099Z**	Jack, CD/LINE IN
J 2	**RJF1098Y**	Terminal, EXT Speaker
J 3	**RJJ1D25Z**	Jack, Mixing Microphone
J 4 (S27) (Z) (F) (I) (G) (XC)	**RJJ1F2ZC-H**	Jack, AC/DC IN ⚠
J 4 (S27) (E)	**RJJ1F3Z**	Jack, AC/DC IN ⚠
J 5	**RJJ1D27Z**	Jack, Headphones
J 6 (Z) (E) (F) (XC)	**RJF1095Z**	Terminal, EXT Antenna


BAND
TUNER CIRCUIT BOARD
IC2
TELESCOPIC ANTENNA
CS2
TO CP2
TO CP5
IC1
Q1
IC3
BATT. 15V (UM-1x10)
CSI4
CSI7
RED
WHT
TO CPI7
POWER SUPPLY CIRCUIT BOARD
TO POWER TRANSFORMER
CP14
W17
F2 T5A
W1
WHT
W16
BLU
W15
W12
C373
D319
C397
C371
C374
C372
L304
L303
(S27)
DC IN
J4
AC IN
(For I G)


POWER TRANS CIRCUIT BOARD
T301
POWER TRANSFORMER
W12
W13
W14
W15
W16
W1
BLU
WHT
BATT. 15V (UM-1x10)
CSI4
CSI7
RED
WHT
TO CPI7
POWER SUPPLY CIRCUIT BOARD
CP14
W17
F2 T5A
C373
D319
C397
C371
C374
C372
(S27)
S16
DC IN
J4
AC IN
VOLTAGE SELECTOR
(For XC)


IC1, 302
Q114, 115, 119, 120, 122, 214, 215, 219, 220, 222, 304, 308, 315~318, 320, 329, 330, 332
IC2
IC3
Q324
IC101, 201
Q327, 328
IC102, 202
Q333
IC301
Cathode
Anode
D1~3, 101~103, 201~203, 301~304, 309, 311, 312, 315, 317, 347~349, 351~355
IC303
Red
D305~308, 322~346
IC304~308
Q1, 101, 102, 104, 105, 107~113, 116~118, 121, 201, 202, 204, 205, 207~213, 216~218, 221, 303, 306, 307, 309, 312, 313, 319, 321~323, 326, 331, 334~336
D313, 318
D319
Green
D320, 321
Q103, 203, 301, 310, 311, 325

CIRCUIT BOARD AND WIRING CONNE

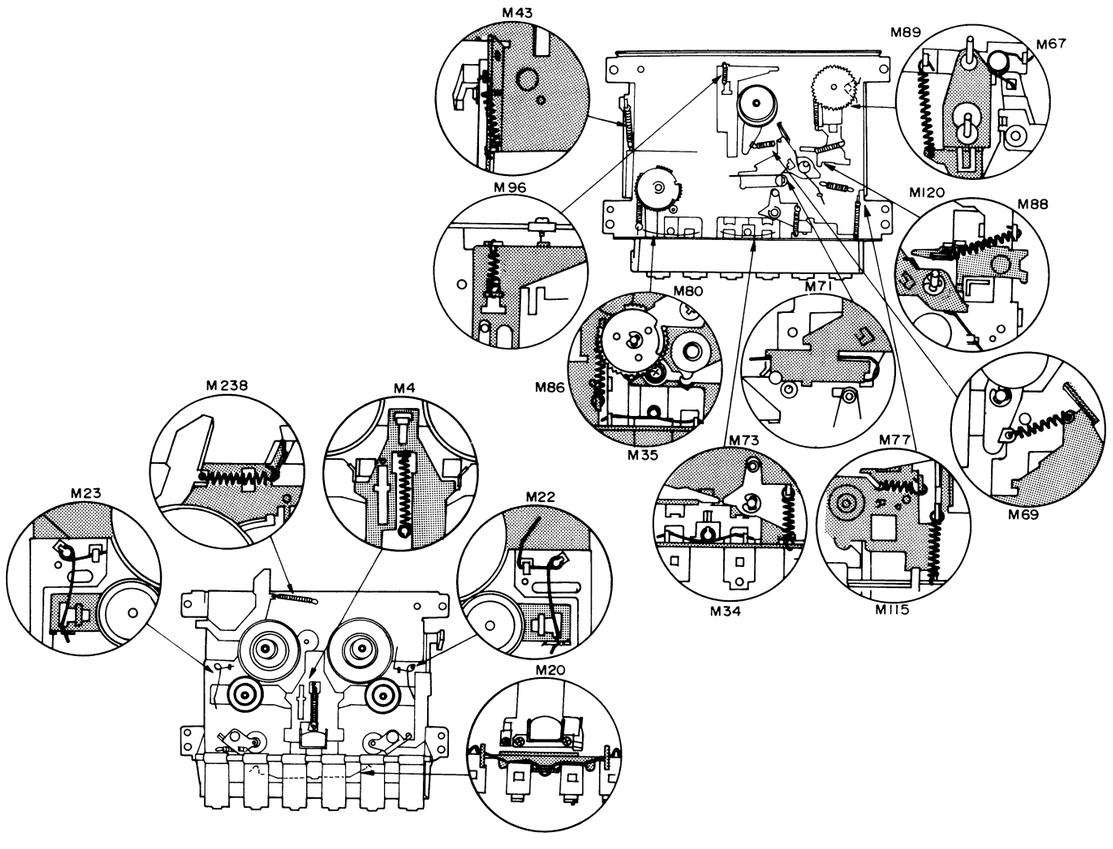


AND WIRING CONNECTION DIAGRAM

12 13 14 15 16 17 18 19 20 21 22 23 24 25

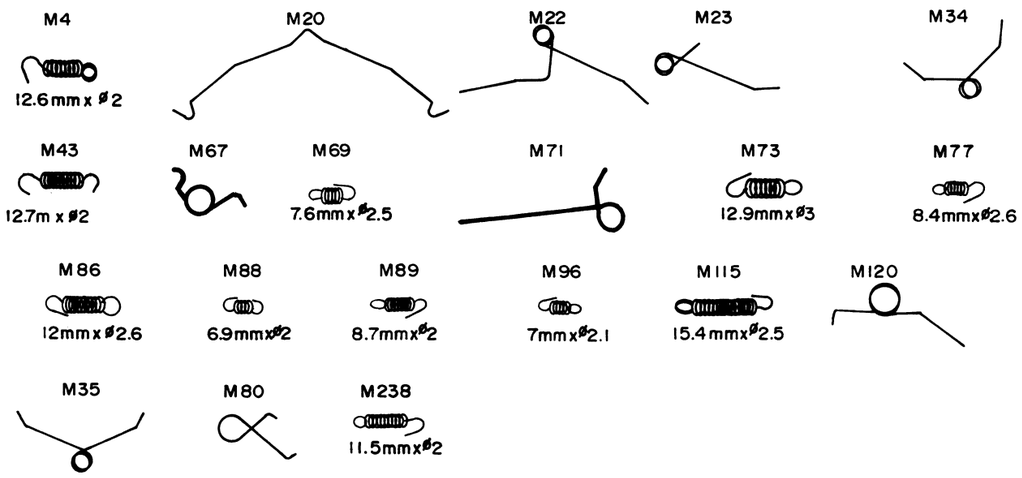
TAPE [I]
ERASE HEAD
WHT
SLD
S25: FF/REW SWITCH
S24: MOTOR SWITCH
S23: PLAY SWITCH
MOTOR
GRY YEL GRY BRN YEL RED WHT BLU BLK BRN
CS19
CS8
CS11
CS1
BLU RED RED RED RED RED RED RED RED
CS3
WHT WHT WHT WHT WHT WHT WHT WHT WHT WHT RED
CERAMIC SPEAKER 2 cm (1.4 kΩ) TWEETER (Lch)
PM DYNAMIC SPEAKER 5 cm (6Ω) SQUAUKER (Lch)
PM DYNAMIC SPEAKER 12 cm x 12 cm (8Ω) WOOFER (Lch)
(L ch) TO SPEAKER TERMINAL
CERAMIC SPEAKER 2 cm (1.4 kΩ) TWEETER (Rch)
PM DYNAMIC SPEAKER 5 cm (6Ω) SQUAUKER (R ch)
PM DYNAMIC SPEAKER 12 cm x 12 cm (8Ω) WOOFER (Rch)
(R ch) TO SPEAKER TERMINAL
G.EQ CIRCUIT BOARD
IC308 IC307 IC306 IC305
Q220 Q120 Q219 Q119
FM MODE SELECTOR
FINE TUNING
VOLUME
BALANCE
MIXING LEVEL
(10kHz) (5kHz) (2.5kHz) (1kHz) (500Hz) (250Hz) (100Hz)
GRAPHIC EQUALIZER
IC303 Q326
(10kHz) (3.3kHz) (1kHz) (330Hz) (100Hz)
SPECTRUM ANALIZER
IC304
Q108 Q107 Q335 Q218 Q118
EQUALIZER MODE
FUNCTION
Q313 Q109 Q209 Q214 Q215
CS5
R/P HEAD (TAPE [I])
GRN YEL BLU WHT RED BLK
CS18
CS7
DIRECTION
(FWD) (REW) (FWD) (REV)
Q317 Q318
TAPE SELECTOR
DUBBING MODE
SWITCH CIRCUIT BOARD
DOLBY NR
RELAY PLAY
BAND
TUNER CIRCUIT BOARD
IC2
TELESCOPIC ANTENNA
J6
FM EXT. ANT
CS2
IC1 Q1 IC3
(For Z E F XC)
IC201
J1 CD/LINE IN
Q216 Q203 Q217 Q117 Q102
Q315 Q202
Q114 Q115 Q210 Q110
IC301

SPRING PARTS LOCATION



■ SPRING ILLUSTRATION

The spring illustration used shows the actual size so it can be used to check the shape of the spring.
(The illustration shows the spring separated from the mechanism.)



Specifications

Playback torque	25~55g · cm
Fast Forward torque	80~140g · cm
Rewind torque	80~140g · cm
Wow and flutter	Less than 0.35% (WRMS)

Screw Dimensions Quick Reference

- **Dimensions**

XSN 3 + 10 = Pan head machine screw, 3mm in diameter, 10mm long.

Type/Diameter/Length

- **Types**

Precision machine screw	Machine screw	Tapping/Tap-tight machine screw
XQC Flat head	XSB Binding head	XTB Binding head
XQG Oval fillister head	XSC Oval countersunk head	XTC Oval countersunk head
XQH Flat fillister head	XSH Flat fillister head	XTN Pan head
XQS Flat head	XSN Pan head	XTS Flat head
	XSS Flat head	

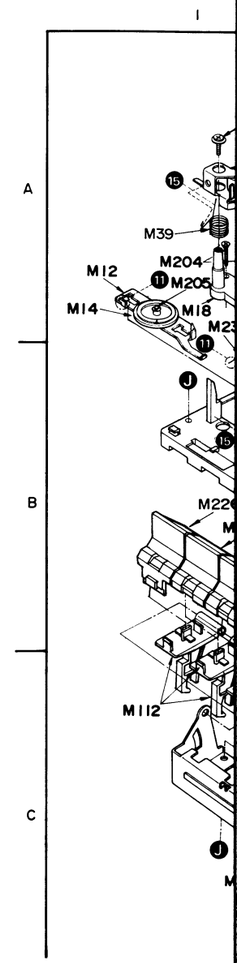
■ MECHANISM PARTS LIST (TAPE [1])

REPLACEMENT PARTS LIST

The letter in the circle after the part name indicates the color of the part.
Ⓢ... Silver

Ref. No.	Part No.	Part Name & Description
		MECHANICAL PARTS
M 1	RFU56Z	Head Panel Ass'y
M 2	RFY725ZA	Lever, C.H.P.
M 3	RFX128Z	Collar, Slide Lever
M 4	RFS525Z	Spring, Head Panel
M 5	RFU57Z	Head Base
M 6	RFE207Z	Head Plate
M 7	RFS498Z	Spring Plate, Head
M 8	RJH4C06GYAM	Record/Playback Head
M 10	RJH2C05YZAM	Erase Head
M 12	RFD203Z	Trigger Roller Plate Ass'y (REV)
M 13	RFD204Z	Trigger Roller Plate Ass'y (FWD)
M 14	RFK15Z	Trigger Roller Ass'y
M 15	RFR33Z	Pinch Roller Arm (REV) Ass'y
M 16	RFX129Z	Collar (A), C.H.P.
M 18	RFE208Z	Pinch Roller Arm Base (REV)
M 19	RFR32Z	Pinch Roller (FWD) Ass'y
M 20	RFS545Z	Spring, Pinch Roller
M 21	RFE209Z	Pinch Roller Arm Base (FWD)
M 22	RFS656ZA	Spring, Trigger Roller (FWD)
M 23	RFS502Z	Spring, Trigger Roller (REV)
M 24	RFY502Z	Lever, Head Base Control
M 25	RFJ63ZA	Reel Table Ass'y (REV)
M 28	RFJ64ZA	Reel Table Ass'y (FWD)
M 29	RFS546Z	Spring, Back Tension
M 30	RFU58Z	Button Base
M 34	RFS547Z	Spring (A), Button Lever
M 35	RFS508Z	Spring (B), Button Lever
M 36	RFY503Z	Lever, Erase Safety
M 37	RFS509Z	Spring, Cassette Holder
M 38	RFG94ZA	Gear, FF
M 39	RFS650ZA	Spring, Pinch Roller Arm (REV)
M 40	RFS658ZA	Spring, Pinch Roller Arm (FWD)
M 41	RFY722Z	Lever, Eject Slide
M 42	RFX120Z	Collar, Eject Slide Lever
M 43	RFS659ZA	Spring, Eject Slide Lever
M 44	RFU98ZA	Mechanism Base Ass'y
M 45	RFY505Z	Slide Lever
M 46	RFD224Z	Plate, Switch Spring
M 50	RFX146ZA	RC Stopper
M 51	RFY558Z	Plate, Pressure Button Operation
M 52	RFS549Z	Spring, Pressure Button Operation Plate
M 53	RFY526Z	Plate, Switch Operation
M 54	RFY559Z	Lever, Rew
M 55	RFY507Z	Lever, Rec Button
M 56	RFY508Z	Lever, Play Button
M 57	RFY509Z	Lever, Rew Button
M 58	RFY510Z	Lever, FF Button
M 59	RFY511Z	Lever, Stop Button
M 60	RFY512Z	Lever Ass'y, Pause Button
M 61	RFY513Z	Lever, Pause
M 62	RFS512Z	Spring, Pause Lever
M 63	RFX122Z	Stopper, Pause Lever
M 64	RFY514Z	Lever, Mode Change
M 67	RFS526Z	Spring (B), Mode Change Lever
M 68	RFK16Z	RF Clutch Ass'y
M 69	RFS660ZA	Spring, RF Clutch Ass'y
M 70	RFB59Z	Belt, FF
M 71	RFS514Z	Spring, Lift Arm Ass'y
M 72	RFY516Z	Lift Arm Ass'y
M 73	RFS551Z	Spring, Main Trigger Arm Ass'y
M 74	RFY517Z	Main Trigger Arm Ass'y
M 75	RFG75Z	Gear, Main
M 76	RFY518Z	Change Lever Ass'y
M 77	RFS552Z	Spring, Change Lever Ass'y
M 78	RFG82Z	Gear, Change
M 79	RFG77Z	Gear, Head Plate Moving
M 80	RFS517Z	Spring, Trigger Arm
M 81	RFX148ZA	Collar, Trigger Arm
M 82	RFY519Z	Trigger Arm Ass'y
M 83	RFY520Z	Arm, Trigger
M 84	RFX123Z	Collar, Trigger Arm
M 85	RFY521Z	Play Moving Arm Ass'y
M 86	RFS518Z	Spring, Play Moving Arm Ass'y
M 87	RFG79Z	Cam Gear Plate Ass'y
M 88	RFS553Z	Spring, Detector Plate
M 89	RFS520Z	Spring, Cam Gear Plate
M 90	RFG78Z	Gear, Cam
M 91	RFQ35Z	Pully
M 92	RFB60Z	Belt (A), Main
M 93	RFY522Z	Lever, RF
M 94	RFE211Z	Plate, Detector
M 95	RFY523Z	Lever, Control
M 96	RFS554Z	Spring, Control Lever
M 100	RFF45ZA	Flywheel Ass'y, Pulley Capstan
M 101	RFF46ZA	Flywheel Ass'y, Gear Capstan
M 102	RFB52Z	Belt (B), Main
M 104	RFS522ZA	Spring, Damper
M 105	RFE212Z	Plate, Flywheel Cover
M 106	RFE213Z	Screw, Motor Ass'y
M 107	RFi32Z	Cushion, Motor Ass'y
M 108	RFD207Z	Plate, Flywheel Holding
M 109	RFU101ZA	Circuit Board, Switch
M 110	RFM100ZA	Motor Ass'y
M 112	RFY524Z	Lever, Operation
M 113	RFY726ZA	Shaft, Button Lever
M 114	RFD206Z	Frame, Button
M 115	RFS523Z	Spring, Rec Button Lever
M 120	RFS582Z	Spring, Lift Arm Ass'y
M 201	RFE214Z	Screw ⊕2×10 (R/P Head M'tg) (Azimuth)
M 202	RFE326ZA	Screw ⊕2.6×10 (Erase Head M'tg)
M 203	XQC2+3	Screw ⊕2×3 (C.H.P. Lever M'tg)
M 204	RFE215Z	Screw ⊕2×8.5 (Pinch Roller Arm Base M'tg)
M 205	RFE216Z	Poly Slider Washer ϕ1.2 (Trigger Roller Plate, etc. M'tg)
M 206	RFE327ZA	Screw ⊕2×6 (Pinch Roller Arm M'tg)
M 207	XSN2+3	Screw ⊕2×3 (Cassette Holder Spring etc, M'tg)
M 209	RFN152Z	Washer ϕ2.1, Detector Plate, etc. M'tg
M 210	RFE221Z	Screw ⊕2×5 (Eject Slide Lever M'tg)
M 211	XUC25FT	E Ring (Head Plate Moving Gear etc, M'tg)
M 212	RFE222Z	Screw ⊕2×6 (Button Base etc. M'tg)
M 213	RFE329ZA	Screw ⊕2×3 (Slide Lever Shassis etc, M'tg)
M 214	RFE324Z	Screw ⊕2×1.5 (Switch Spring Plate M'tg)
M 215	RFE133Z	Poly Washer (Reel Table Ass'y M'tg)
M 216	XQN2+35	Screw ⊕2×3.5 (Trigger Arm M'tg)
M 217	RFE332ZA	Screw (RF Lever, etc. M'tg)
M 218	RFE330ZA	E Ring (Change Gear M'tg)
M 219	XSN2+3	Screw ⊕2×3 (Switch Circuit Board M'tg)
M 220	XQN2+7	Screw ⊕2×7 (Button Frame M'tg)
M 221	RFE218Z	Poly Washer (Flywheel)
M 224	XTB2+3	Screw ⊕2×3 (Switch Circuit Board M'tg)
M 226	RBC1015ZA	Button, Rec
M 227	RBC1016ZA	Button, Play
M 228	RBC1017ZA	Button, Rew
M 229	RBC1018ZA	Button, FF
M 230	RFY527Z	Lever (B), Change
M 231	RBC1019ZA	Button, Stop/Eject
M 232	RBC1020ZA	Button, Pause
M 233	RFY528Z	Lever (A), Change
M 234	XYN2+C4	Screw ⊕2×4 (Change Lever (B) M'tg)
M 235	RFX147ZA	Collar, Change Lever (B)
M 238	RFS661ZA	Spring, Cam Gear Plate
M 239	XYN2+C3	Screw ⊕2×3 (Flywheel Holding Plate M'tg)
M 247	RFS559Z	Spring, Dumper
M 248	RFD297ZA	Shaft, Stopper

(FRONT VIEW)

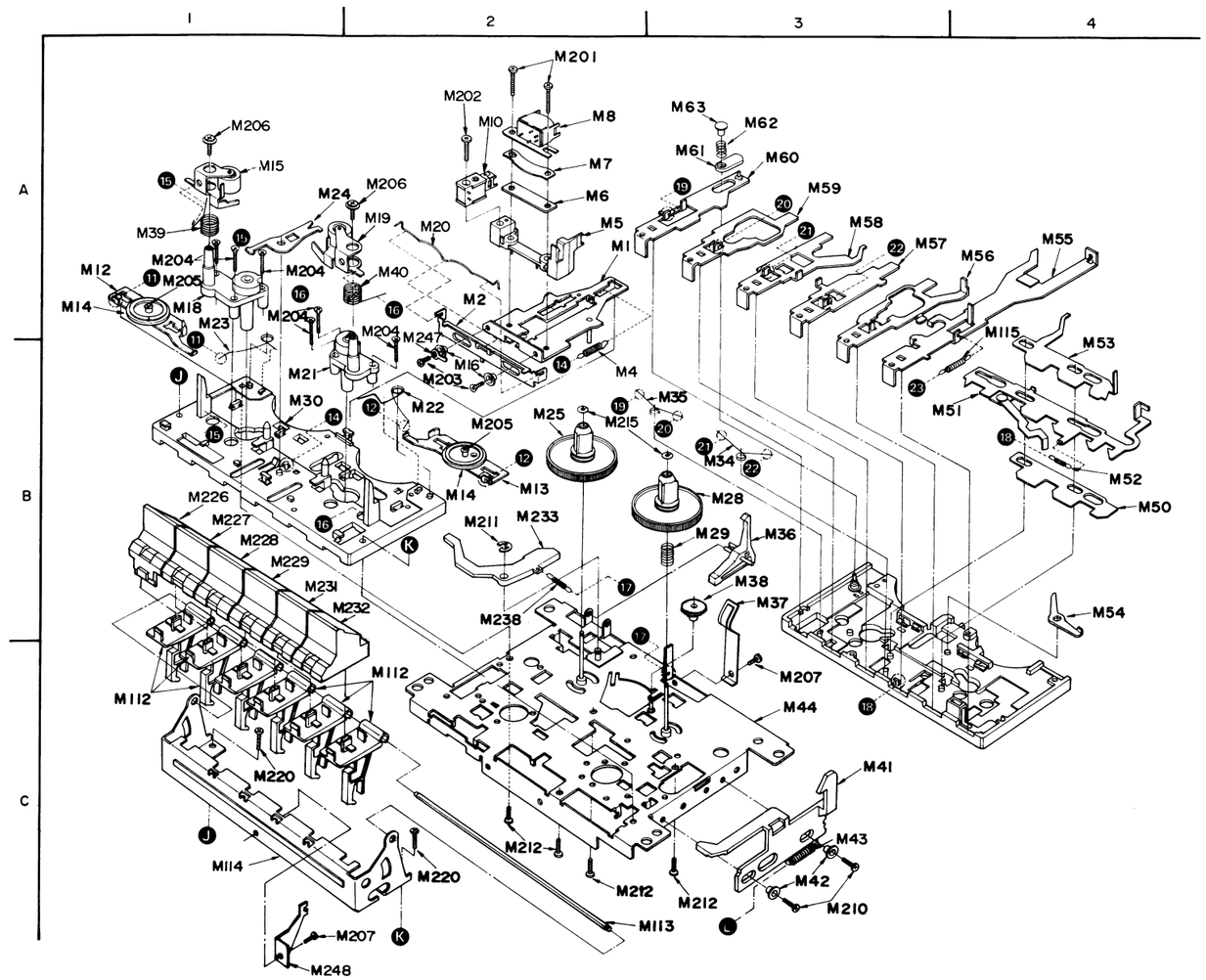


M1 ~ 49	14	12	39	18	23	
M50~199		112				11
M200-215			204	205		
M216~					226	

MECHANISM PARTS LOCATION (TAPE 1)

• RECORD/PLAYBACK MECHANISM

(FRONT VIEW)

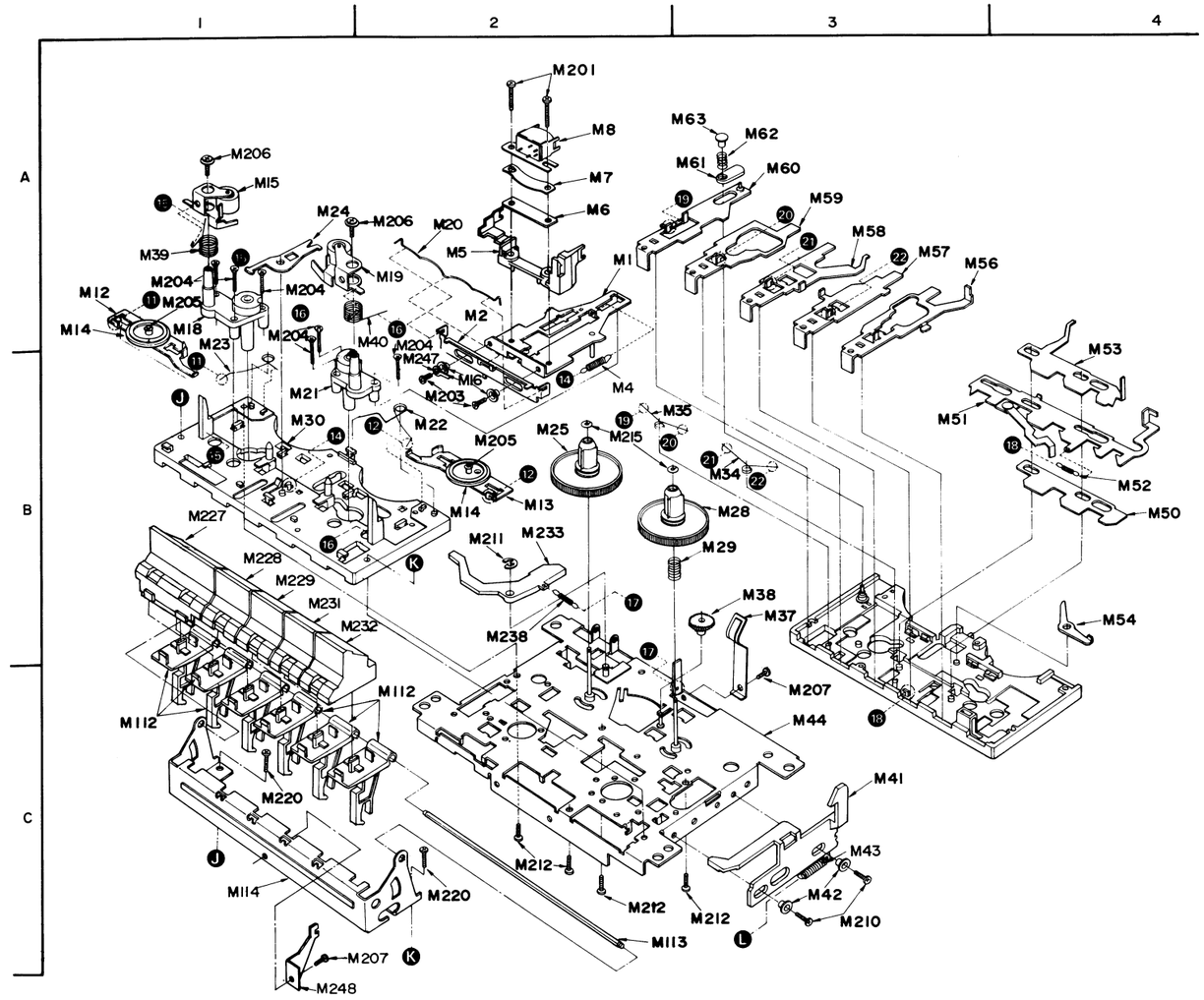


| | | |

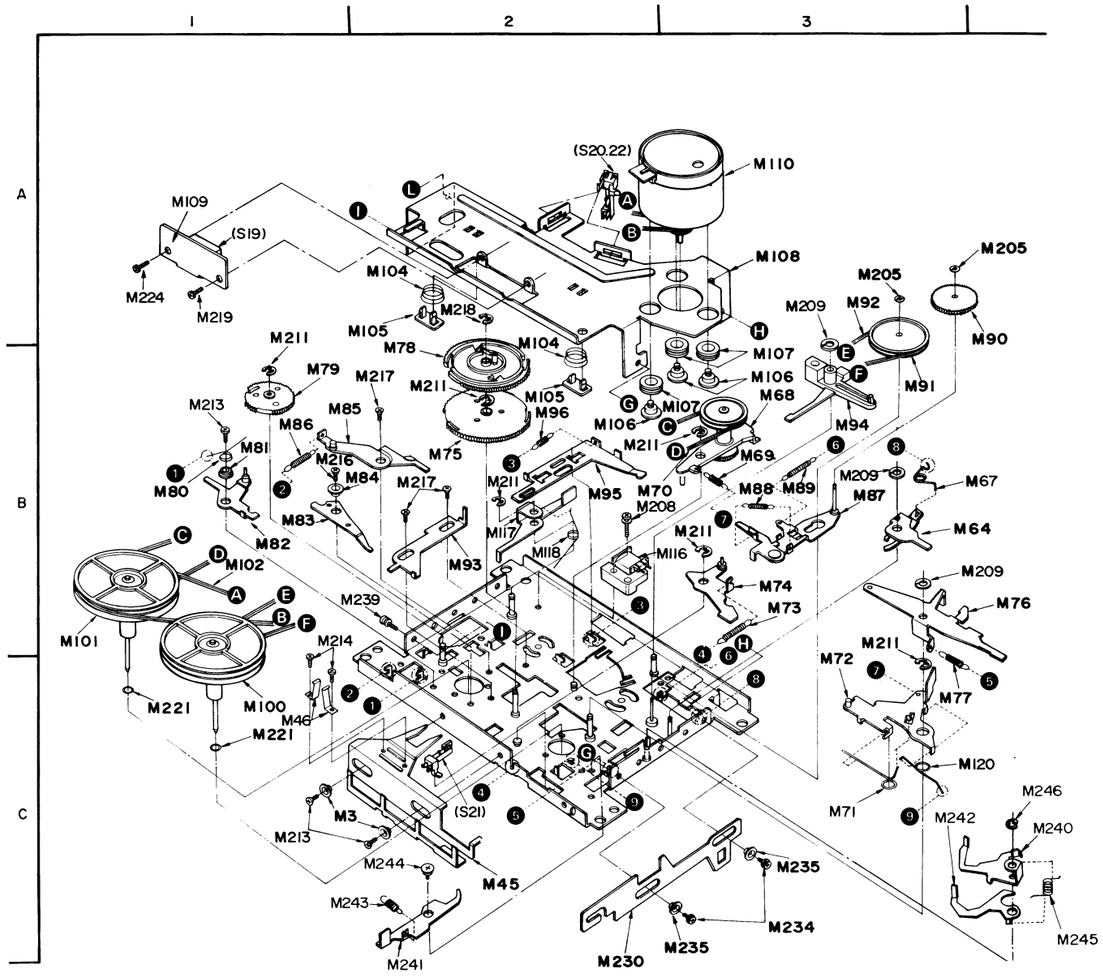
MECHANISM PARTS LOCATION (TAPE [2])

• PLAYBACK MECHANISM

(FRONT VIEW)



(REAR VIEW)

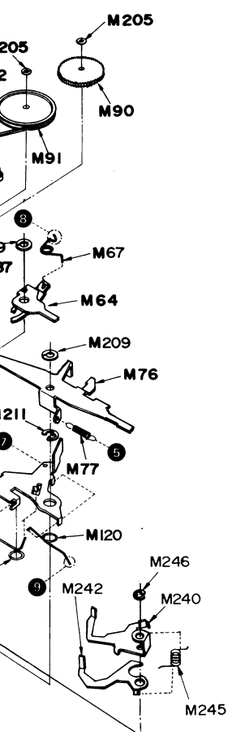


| | | |

■ MECHANISM PARTS LIST (TAPE [2])

REPLACEMENT PARTS LIST

The letter in the circle after the part name indicates the color of the part.
Ⓢ... Silver



	77	64	67	76				
87	91		90					
			120					
211	205		209	205				
		242		246	240	245		

Ref. No.	Part No.	Part Name & Description
		MECHANICAL PARTS
M 1	**RFU56Z**	Head Panel Ass'y
M 2	**RFY725ZA**	Lever, C.H.P.
M 3	**RFX128Z**	Collar, Slide Lever
M 4	**RFS525Z**	Spring, Head Panel
M 5	**RFU57Z**	Head Base
M 6	**RFE207Z**	Head Plate
M 7	**RFS498Z**	Spring Plate, Head
M 8	**RJH4C06GZAM**	Playback Head
M 12	**RFD203Z**	Trigger Roller Plate Ass'y (REV)
M 13	**RFD204Z**	Trigger Roller Plate Ass'y (FWD)
M 14	**RFK15Z**	Trigger Roller Ass'y
M 15	**RFR33Z**	Pinch Roller Arm (REV) Ass'y
M 16	**RFX129Z**	Collar (A), C.H.P.
M 18	**RFE208Z**	Pinch Roller Arm Base (REV)
M 19	**RFR32Z**	Pinch Roller Arm (FWD) Ass'y
M 20	**RFS545Z**	Spring, Pinch Roller
M 21	**RFE209Z**	Pinch Roller Arm Base (FWD)
M 22	**RFS656ZA**	Spring, Trigger Roller (FWD)
M 23	**RFS502Z**	Spring, Trigger Roller (REV)
M 24	**RFY502Z**	Lever, Head Base Control
M 25	**RFJ63ZA**	Reel Table Ass'y (REV)
M 28	**RFJ64ZA**	Reel Table Ass'y (FWD)
M 29	**RFS546Z**	Spring, Back Tension
M 30	**RFU58Z**	Button Base
M 34	**RFS547Z**	Spring (A), Button Lever
M 35	**RFS508Z**	Spring (B), Button Lever
M 37	**RFS509Z**	Spring, Cassette Holder
M 38	**RFG94ZA**	Gear, FF
M 39	**RFS650ZA**	Spring, Pinch Roller Arm (REV)
M 40	**RFS658ZA**	Spring, Pinch Roller Arm (FWD)
M 41	**RFY722Z**	Lever, Eject Slide
M 42	**RFX120Z**	Collar, Eject Slide Lever
M 43	**RFS659ZA**	Spring, Eject Slide Lever
M 44	**RFU99ZA**	Mechanism Base Ass'y
M 45	**RFY505Z**	Slide Lever
M 46	**RFD224Z**	Plate, Switch Spring
M 50	**RFX146ZA**	RC Stopper
M 51	**RFY558Z**	Plate, Pressure Button Operation
M 52	**RFS549Z**	Spring, Pressure Button Operation Plate
M 53	**RFY526Z**	Plate, Switch Operation
M 54	**RFY559Z**	Lever, Rew
M 56	**RFY508Z**	Lever, Play Button
M 57	**RFY509Z**	Lever, Rew Button
M 58	**RFY510Z**	Lever, FF Button
M 59	**RFY511Z**	Lever, Stop Button
M 60	**RFY512Z**	Lever Ass'y, Pause Button
M 61	**RFY513Z**	Lever, Pause
M 62	**RFS512Z**	Spring, Pause Lever
M 63	**RFX122Z**	Stopper, Pause Lever
M 64	**RFY727ZA**	Lever, Mode Change
M 67	**RFS526Z**	Spring (B), Mode Change Lever
M 68	**RFK16Z**	RF Clutch Ass'y
M 69	**RFS660ZA**	Spring, RF Clutch Ass'y
M 70	**RFB59Z**	Belt, FF
M 71	**RFS514Z**	Spring, Lift Arm Ass'y
M 72	**RFY516Z**	Lift Arm Ass'y
M 73	**RFS551Z**	Spring, Main Trigger Arm Ass'y
M 74	**RFY517Z**	Main Trigger Arm Ass'y
M 75	**RFG75Z**	Gear, Main
M 76	**RFY728ZA**	Change Lever Ass'y
M 77	**RFS552Z**	Spring, Change Lever Ass'y
M 78	**RFG82Z**	Gear, Change
M 79	**RFG77Z**	Gear, Head Plate Moving
M 80	**RFS517Z**	Spring, Trigger Arm
M 81	**RFX148ZA**	Collar, Trigger Arm
M 82	**RFY519Z**	Trigger Arm Ass'y
M 83	**RFY520Z**	Arm, Trigger
M 84	**RFX123Z**	Collar, Trigger Arm
M 85	**RFY521Z**	Play Moving Arm Ass'y
M 86	**RFS518Z**	Spring, Play Moving Arm Ass'y
M 87	**RFG95ZA**	Cam Gear Plate Ass'y
M 88	**RFS553Z**	Spring, Detector Plate
M 89	**RFS520Z**	Spring, Cam Gear Plate
M 90	**RFG78Z**	Gear, Cam
M 91	**RFQ35Z**	Pully
M 92	**RFB60Z**	Belt (A), Main
M 93	**RFY522Z**	Lever, RF
M 94	**RFE211Z**	Plate, Detector
M 95	**RFY523Z**	Lever, Control
M 96	**RFS554Z**	Spring, Control Lever
M 100	**RFF45ZA**	Flywheel Ass'y, Pulley Capstan
M 101	**RFF46ZA**	Flywheel Ass'y, Gear Capstan
M 102	**RFB52Z**	Belt (B), Main
M 104	**RFS522Z**	Spring, Damper
M 105	**RFE212Z**	Plate, Flywheel Cover
M 106	**RFE213Z**	Screw, Motor Ass'y
M 107	**RFi32Z**	Cushion, Motor Ass'y
M 108	**RFD207Z**	Plate, Flywheel Holding
M 109	**RFU102ZA**	Circuit Board, Switch
M 110	**RFM100ZA**	Motor Ass'y
M 112	**RFY524Z**	Lever, Operation
M 113	**RFY726ZA**	Shaft, Button Lever
M 114	**RFD206Z**	Button Frame
M 116	**RFP16ZA**	Plunger Ass'y
M 117	**RFY561Z**	Lever, TPS
M 118	**RFS557Z**	Spring, TPS Lever
M 120	**RFS582Z**	Spring, Lift Arm Ass'y
M 201	**RFE214Z**	Screw ⊕2×10 (R/P Head M'tg) (Azimuth)
M 203	**XQC2+3**	Screw ⊕2×3 (C.H.P. Lever M'tg)
M 204	**RFE215Z**	Screw ⊕2×8.5 (Pinch Roller Arm Base M'tg)
M 205	**RFE216Z**	Poly Slider Washer φ1.2 (Trigger Roller Plate, etc. M'tg)
M 206	**RFE327ZA**	Screw ⊕2×6 (Pinch Roller Arm M'tg)
M 207	**XSN2+3**	Screw ⊕2×3 (Cassette Holder Spring etc, M'tg)
M 208	**RFE328ZA**	Screw ⊕2×8 (Plunger Ass'y M'tg)
M 209	**RFN152Z**	Washer φ2.1, Detector Plate, etc. M'tg)
M 210	**RFE221Z**	Screw ⊕2×5 (Eject Slide Lever M'tg)
M 211	**XUC25FT**	E Ring (Head Plate Moving Gear etc, M'tg)
M 212	**RFE222Z**	Screw ⊕2×6 (Button Base etc. M'tg)
M 213	**RFE329ZA**	Screw ⊕2×3 (Slide Lever Shassis etc, M'tg)
M 214	**RFE324Z**	Screw ⊕2×1.5 (Switch Spring Plate M'tg)
M 215	**RFE133Z**	Poly Washer (Reel Table Ass'y M'tg)
M 216	**XQN2+35**	Screw ⊕2×3.5 (Trigger Arm M'tg)
M 217	**RFE332ZA**	Screw (RF Lever, etc. M'tg)
M 218	**RFE330ZA**	E Ring (Change Gear M'tg)
M 219	**XSN2+3**	Screw ⊕2×3 (Switch Circuit Board M'tg)
M 220	**XQN2+7**	Screw ⊕2×7 (Button Frame M'tg)
M 221	**RFE218Z**	Poly Washer (Flywheel)
M 224	**XTB2+3**	Screw ⊕2×3 (Switch Circuit Board M'tg)
M 227	**RBC1021ZA**	Button, Play
M 228	**RBC1017ZA**	Button, Rew
M 229	**RBC1018ZA**	Button, FF
M 230	**RFY527Z**	Change Lever (B)
M 231	**RBC1019ZA**	Button, Stop/Eject
M 232	**RBC1020ZA**	Button, Pause
M 233	**RFY528Z**	Lever (A), Change
M 234	**XYN2+C4**	Screw ⊕2×4 (Change Lever (B) M'tg)
M 235	**RFX147ZA**	Collar
M 238	**RFS661ZA**	Spring, Cam Gear Plate
M 239	**XYN2+C3**	Screw ⊕2×3 (Flywheel Holding Plate M'tg)
M 240	**RFY729ZA**	Lever, Selector
M 241	**RFY730ZA**	Lever, Detector
M 242	**RFY731ZA**	Lever, Stop
M 243	**RFS661ZA**	Spring, Detector Lever
M 244	**RFE332ZA**	Screw (Detector Lever M'tg)
M 245	**RFS662ZA**	Spring, Selector Lever
M 246	**RFE333ZA**	E Ring (Selector Lever M'tg)
M 247	**RFS559Z**	Spring, Dumper
M 248	**RFD297ZA**	Shaft, Stopper

CAPACITORS & RESISTORS PARTS LIST

Numbering System of Resistor

Example:

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value (100Ω)

ERJ	6G	C	J	2R2
Type	Wattage	Shape	Tolerance	Value (2.2Ω)

Resistor Type		Wattage	Tolerance
ERD:	Carbon Resistor	10 : 1/8W	F : ±1%
ERC:	Solid Resistor	25 : 1/4W	G : ±2%
ERF:	Incombustible Box-Shaped	50 : 1/2W	J : ±5%
	Wire-Wound Resistor	18 : 1/8W	K : ±10%
ERG:	Metal Oxide-Film Resistor	14 : 1/4W	H : ±20%
ERM:	Wire-Wound Resistor	12 : 1/2W	
ERO:	Superstable Metal Film Resistor	1 : 1W	
ERX:	Metal-Film Resistor	2 : 2W	
RRJ: ERJ:	Chip Resistor	3 : 3W	
		S1 : 1/2W	
		S2 : 1/4W	
		6G : 1/10W	
		8G : 1/8W	

※ Capacity are in microtarads (μF) unless specified otherwise, P=Pico-farads.
※ Resistance are in ohms (Ω), unless specified otherwise, 1K=1,000Ω, 1M=1,000KΩ

Numbering System of Capacitor

Example:

ECKD	1H	102	Z	F
Type	Voltage	Value (1000pF)	Tolerance	Peculiarity

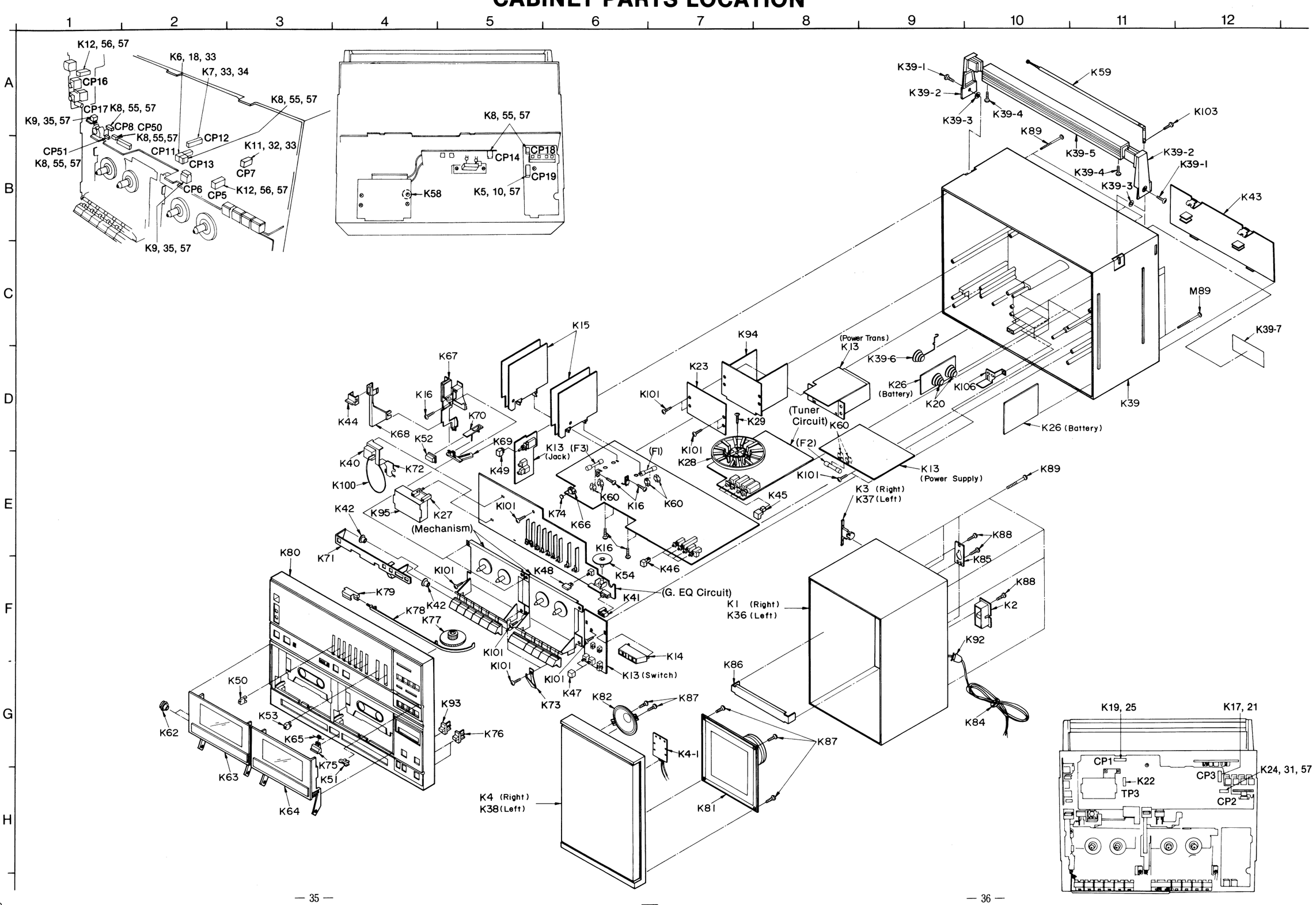
ECEA	50	M	R47
Type	Voltage	Peculiarity	Value (0.47μF)

Capacitor Type		Voltage				Tolerance
ECCD:	Ceramic Capacitor (Chitacon)	(ECCD, ECKD Type) 1H : 50V DC		2H : 500V DC		K : ±10%
ECKD:	Ceramic Capacitor (Chitabari)	(ECFD Type) C : 12V DC		D : 25V DC		M : ±20%
ECFD:	Semiconductor Ceramic Capacitor	E : 50V DC				Z : +80 −20%
ECE□:	Electrolytic Capacitor	(ECQ Type) 05 : 50WV DC		1 : 100WV DC		J : ±5%
ECS□:	Tantalum Fixed Electrolytic Capacitor	(ECE, ECS Type) 0G : 4V		0J : 6.3V		G : ±2%
ECQ□:	Polystyrenc Film Capacitor	1A : 10V		1C : 16V		F : ±1%
ECQS:	Polystyrene Film Capacitor	1E : 25V		1V : 35V		C : ±0.25pF
ECQS:	Polypropylene Film Capacitor	1H : 50V		1J : 63V		D : ±0.5pF
ECQV:	T.F Capacitor	2A : 100V				F : ±1pF
ECU□: RCU□:	Chip Capacitor					
ECBT:	Cylindrical Ceramic Capacitor					

Notes:
(Z)...For All European areas except (E)(F)(I)(G). (E)...For United Kingdom. (F)...For France.
(I)...For Itary and Finland. (G)...For F.R. Germany. (XC)...For Saudi Arabia.

Ref. No.	Part No.
	CAPACITORS
C 1 (Z) (E) (F) (XC)	**ECKT1H102KB**
C 2, 7, 11, 17, 25, 146, 246	**ECKT1H102KB**
C 3	**RCBS1H270JL**
C 4	**RCBS1H120JC**
C 6	**RCBS1H200JC**
C 8	**ECCT1H390KC**
C 9	**ECCT1H070DC**
C 12	**RCBS1H3R9KC**
C 13 (Z) (E) (F) (XC)	**ECCT1H150K**
C 13 (G) (I)	**ECCD1H120KS**
C 14, 26, 31, 34, 35, 40, 181, 183, 281, 283	**ECFT1C223MD**
C 15	**ECCT1H180KC**
C 16	**RCBS1H470JL**
C 18	**ECCT1H150K**
C 19, 354	**RCBS1C822MY**
C 21	**RCBS1H6R8KC**
C 22	**ECQP2A221JZ**
C 23	**ECQP2A361JZ**
C 24	**ECQP2A392JZ**
C 27 (Z) (E) (F) (XC)	**ECFT1C223MD**
C 27 (G) (I)	**RCBS0J223NYY**
C 28, 29, 33, 46, 148, 153, 161, 248, 253, 261, 347, 349, 355, 356, 359, 366, 369	**ECEA1HU010**
C 30	**ECEA1HU2R2B**
C 32, 39, 363	**ECFT1C103MD**
C 36	**ECCT1H331K**
C 37	**ECEA0JU221B**
C 38	**ECEA1HU4R7**
C 41, 156, 256	**ECEA1CU100**
C 42 (Z) (E) (I) (G) (XC)	**ECFT1C103MD**
C 42, 43 (F)	**ECFT1C223MD**
C 43 (Z) (E) (I) (G) (XC)	**ECFT1C333MD**
C 44	**ECQP2A102JZT**
C 45, 164, 264	**ECEA1HUR47B**
C 51	**ECQP2A121JZT**
C 53 (Z) (E) (F) (XC)	**RCBS1H101KB**
C 54, 55	**RCBS1H101KB**
C 56	**ECEA1HNR47SB**
C 57 (G) (I)	**ECKT1H471KB**
C 101, 201	**RCBS1H331KB**
C 102, 103, 118, 121, 136, 144, 149, 202, 203, 218, 221, 236, 244, 249, 307, 313, 314, 370	**ECEA1HU010**
C 104, 110, 119, 134, 142, 204, 210, 219, 234, 242	**RCBS1H101KB**
C 105, 106, 107, 205, 206, 207	**RCBS1H471KB**
C 108, 109, 208, 209, 308, 311	**ECEA0JU470**
C 111, 113, 135, 138, 139, 141, 211, 213, 235, 238, 239, 241, 338, 341	**ECEA1EU4R7**
C 112, 114, 115, 116, 133, 212, 214, 215, 216, 233, 358	**ECFT1C333KDY**
C 117, 217	**RCBS1H821KB**
C 120, 220, 309	**RCBS1H102KB**
C 122, 127, 137, 185, 222, 227, 237, 285, 322, 332, 333, 334, 336, 337	**ECEA1AU221B**
C 123, 143, 145, 151, 223, 243, 245, 251, 304, 329, 331	**ECEA1HU0R1B**
C 124, 126, 224, 226, 317, 330, 335	**ECFT1C473KD**
C 125, 225	**ECEA1HUR33B**
C 128, 228	**ECFT1C223KD**
C 129, 229	**RCBS1C472KX**
C 131, 231	**RCBS1C682KX**
C 132, 232	**RCBS1C562KXY**
C 147, 173, 247, 273	**ECEA1HU0R1B**
C 152, 168, 169, 252, 268, 269, 315, 324, 343, 350, 360, 375	**RCBS1C103NY**
C 154	**RCBS1H471KB**
C 155, 163, 255, 263, 302, 346	**ECEA0JU101B**
C 157, 257	**ECEA0JU221B**
C 158, 258	**ECEA1EU221**
C 159, 259, 319, 321	**RCBS1C222MX**
C 162, 262, 353	**ECFT1C333MD**
C 165, 265	**ECFT1C153MD**
C 166, 266	**ECEA1HUR22B**
C 167, 267	**ECKT1H682MD**
C 171, 172, 271, 272, 323	**ECEA1CU101**
C 174, 364	**ECKT1H332MD**
C 175, 275	**ECKT1H103MD**
C 176, 276, 352	**ECFT1C473MD**
C 177, 178, 277, 278	**ECQV1H224JZ**
C 179, 279, 361	**ECKT1H222MD**
C 182, 282	**ECKT1H152MD**
C 184, 284	**ECEA1HN3R3S**
C 186, 187, 286, 287	**RCBS1H220JL**
C 254	**ECKT1H471KB**
C 274	**RCBS1C332KX**
C 301	**ECEA0JU102B**
C 305	**ECFT1C683MD**
C 312	**ECQP2A103JZ**
C 316, 318, 325, 326	**ECEA1AU101B**
C 327	**ECEA1AU102**
C 328, 342	**ECEA1CU100**
C 340	**ECEA0JU471**
C 348	**ECEA1AU471**
C 351	**ECQV1H154JZ**
C 357	**ECEA1CU471**
C 362	**ECEA1EU472**
C 365 368	**ECKT1H681KB**
C 367	**ECCT1H221K**
C 371, 372, 373, 374	**ECKT1H333ZF**
C 397	**ECQV1H684JZ3**
C 398	**ECQP2A152JZ**
C 399	**ECQP2A392JZ**
	RESISTORS
R 1, 146, 150, 246, 250, 387, 391, 397, 400, 402	**ERDS2TJ104T**
R 2, 4, 7, 9, 18, 31	**ERDS2TJ470T**
R 3, 8, 408	**ERDS2TJ101T**
R 5, 34, 378	**ERDS2TJ474**
R 6	**ERDS2TJ471**
R 10, 11	**ERDS2TJ562T**
R 12, 33, 379, 406, 407	**ERDS2TJ102**
R 13, 149, 249	**ERDS2TJ821T**
R 14, 15	**ERDS2TJ222**
R 16, 19, 20, 148, 152, 248, 252	**ERDS2TJ682T**
R 17	**ERDS2TJ822**
R 30	**ERDS2TJ100**
R 32 (G)	**ERDS2TJ392T**
R 101, 129, 201, 229	**ERDS2TJ473T**
R 102, 202, 332, 342, 383, 384, 425, 429	**ERDS2TJ152T**
R 103, 131, 133, 203, 231, 233, 305, 312, 314, 322, 323, 326, 328, 329, 331, 335, 338, 342, 358, 363, 390, 417, 423	**ERDS2TJ472**
R 104, 107, 143, 204, 207, 243, 352, 364	**ERDS2TJ470T**
R 105, 108, 205, 208	**ERDS2TJ823**
R 106, 109, 206, 209, 426	**ERDS2TJ392T**
R 110, 111, 210, 211, 318, 418	**ERDS2TJ222**
R 112, 117, 128, 140, 212, 217, 228, 240, 430	**ERDS2TJ332**
R 113, 115, 213, 215	**ERDS2TJ182**
R 114, 214, 336, 337	**ERDS2TJ682**
R 116, 216 (Z) (E) (I) (G) (XC)	**ERDS2TJ472**
R 116, 216 (F)	**ERDS2TJ103T**
R 118, 218	**ERDS2TJ153T**
R 119, 219, 301, 306, 341, 345, 346, 347, 348, 353, 356, 359, 385, 386, 427	**ERDS2TJ103**
R 120, 220 (Z) (E) (I) (G) (XC)	**ERDS2TJ822**
R 120, 220 (F)	**ERDS2TJ392T**
R 121, 135, 221, 235, 308, 315, 375, 376	**ERDS2TJ105**
R 122, 222, 316, 366	**ERDS2TJ331**
R 123, 223, 330, 420	**ERDS2TJ272T**
R 124, 224	**ERDS2TJ683**
R 125, 225	**ERDS2TJ274**
R 126, 226	**ERDS2TJ681**
R 127, 227, 339, 340, 392, 424	**ERDS2TJ122T**
R 130, 230	**ERDS2TJ680T**
R 132, 232	**ERDS2TJ822**
R 134, 234, 302, 343, 344	**ERDS2TJ821T**
R 136, 236, 309, 319, 334, 350, 351, 355, 367, 370, 393	**ERDS2TJ102**
R 137, 139, 237, 239, 362, 421	**ERDS2TJ333**
R 138, 238, 317, 349, 357, 360, 361, 422	**ERDS2TJ104T**
R 141, 241	**ERDS2TJ182**
R 142, 242	**ERDS2TJ472**
R 144, 145, 244, 245, 313	**ERDS2TJ1R0**
R 147, 151, 247, 251	**ERDS2TJ331**
R 153, 253, 307, 310, 320, 333, 365	**ERDS2TJ221**
R 154, 254	**ERDS2TJ331**
R 155, 255	**ERDS2TJ393**
R 303, 321, 325, 369	**ERDS2TJ471**
R 368	**ERDS2TJ221**
R 371, 372, 373, 374	**ERDS2TJ223**
R 377	**ERD25VJ106T**
R 380	**ERDS2TJ220T**
R 381, 382, 388, 389, 394, 395, 396, 398, 399, 401	**ERDS2TJ103T**
R 403, 404, 405, 409, 410, 412, 413, 414, 415, 416	**ERDS2TJ121T**
R 411	**ERDS2TJ153T**
R 428	**ERDS2TJ101T**
R 450	**ERDS2TJ100T**
R 451	**ERDS2TJ390T**

CABINET PARTS LOCATION



Notes:

1. The letter in round b
   column indicates th
   (Z).....For all E
   (E).....For Unit
   (F).....For Fran
   (I).....For Italy
   (G).....For F.R.
   (XC).....For Sau
2. The letter in the circ
   indicates the color
   Ⓚ... Black, Ⓢ... Silve

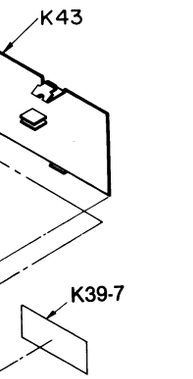
Ref. No.	Part No.	Part Nam
	CABINET PARTS	
K 1	**RKF862ZA**	Speaker Bo
K 2	**RKE512Z**	Holder, Spe
K 3	**RGE76X**	Stopper (R)
K 4	**RYM2XCW200LZ**	Speaker Gr
K 4-1	**RWEXCW200LZ**	Tweeter As
K 5	**RJS4L3Z**	Socket (4 P
K 6	**RJP10G18Z**	Plug (10 Pir
K 7	**RJP12G18ZA**	Plug (12 Pir
K 8	**RJP2G4Y**	Plug (2 Pin)
K 9	**RJP3G4Y**	Plug (3 Pin)
K 10	**RJP4G4Y**	Plug (4 Pin)
K 11	**RJP5G18Z**	Plug (5 Pin)
K 12	**RJP5G4Y**	Plug (5 Pin)
K 13 (Z) (E) (F) (XC)	**RUP2183ZAN-1**	P.C.B (Jack Supply) ⚠
K 13 (G) (I)	**RUP2183YAN**	P.C.B (Jack Supply) ⚠
K 14	**RMP257ZAR-0**	Holder (FW
K 15	**RMY225ZA**	Heat Sink
K 16	**XTV3+8F**	Screw (Hea M'tg)
K 17	**2JSACW200ZA1**	Socket (11
K 18	**RJS10L4ZA-X**	Socket (10
K 19	**2JSACW200ZA2**	Socket (9 Pi
K 20	**RJC511Z**	Terminal, B
K 21	**RJP11G18Z**	Plug (11 Pin
K 22	**RJP3G18Z**	Plug (3 Pin)
K 23	**RMC1109ZA**	Shield Plate
K 24	**RJP6G4Y**	Plug (6 Pin)
K 25	**RJP9G20Z**	Plug (9 Pin)
K 26 (Z) (E) (F) (XC)	**RUP2184YAN**	P.C.B (Batte
K 26 (G) (I)	**RUP2184XAN**	P.C.B (Batte
K 27	**RMP258ZBR**	Holder (Spe IND.)
K 28	**RDG5712ZBR**	Drum, Dial
K 29	**XYN26+C6**	Screw (Dial
K 31	**RJS6L3Z**	Socket (6 Pi
K 32	**RJS5L4Z**	Socket (5 Pi
K 33	**RJT708Z**	Terminal, Sc
K 34	**RJS12L4Z**	Socket (12 P
K 35	**RJS3L3Z**	Socket (3 Pi
K 36	**RKF862YA**	Speaker Box
K 37	**RGE76Y**	Stopper (L) (
K 38	**RYM3XCW200LZ**	Speaker Gri
K 39 (Z) (F)	**RYFXCW200LZ**	Rear Cabine
K 39 (E)	**RYFXCW200LZE**	Rear Cabine
K 39 (I) (G)	**RYFXCW200LZG**	Rear Cabine
K 39 (XC)	**RYFXCW200LXC**	Rear Cabine

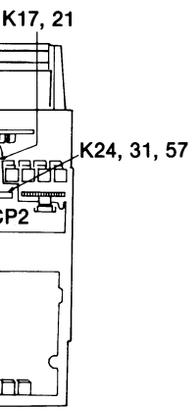
Notes:

1. The letter in round brackets in the Ref. No. column indicates the shipping destination.
   (Z).....For all European areas except (E)(F)(I)(G).
   (E).....For United Kingdom.
   (F).....For France.
   (I).....For Italy and Finland.
   (G).....For F.R. Germany.
   (XC).....For Saudi Arabia.
2. The letter in the circle after the part name indicates the color of the part.
   Ⓚ... Black, Ⓢ... Silver, Ⓗ... Gray, Ⓡ... Red

REPLACEMENT PARTS LIST

Important safety notice
Components identified by ⚠ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.





CABINET PARTS

Ref. No.	Part No.	Part Name & Description
K 1	RKF862ZA	Speaker Box (R) Ⓚ
K 2	RKE512Z	Holder, Speaker Cord Ⓚ
K 3	RGE76X	Stopper (R) Ⓚ
K 4	RYM2XCW200LZ	Speaker Grill Ass'y (R) Ⓚ
K 4-1	RWEXCW200LZ	Tweeter Ass'y
K 5	RJS4L3Z	Socket (4 Pin)
K 6	RJP10G18Z	Plug (10 Pin)
K 7	RJP12G18ZA	Plug (12 Pin)
K 8	RJP2G4Y	Plug (2 Pin)
K 9	RJP3G4Y	Plug (3 Pin)
K 10	RJP4G4Y	Plug (4 Pin)
K 11	RJP5G18Z	Plug (5 Pin)
K 12	RJP5G4Y	Plug (5 Pin)
K 13 (Z) (E) (F) (XC)	RUP2183ZAN-1	P.C.B (Jack, Switch, Power Supply) ⚠
K 13 (G) (I)	RUP2183YAN	P.C.B (Jack, Switch, Power Supply) ⚠
K 14	RMP257ZAR-0	Holder (FWD, REV IND. LED)
K 15	RMY225ZA	Heat Sink
K 16	XTV3 + 8F	Screw (Heat Sink, Chassis M'tg)
K 17	2JSACW200ZA1	Socket (11 Pin)
K 18	RJS10L4ZA-X	Socket (10 Pin)
K 19	2JSACW200ZA2	Socket (9 Pin)
K 20	RJC511Z	Terminal, Battery (−)
K 21	RJP11G18Z	Plug (11 Pin)
K 22	RJP3G18Z	Plug (3 Pin)
K 23	RMC1109ZA	Shield Plate
K 24	RJP6G4Y	Plug (6 Pin)
K 25	RJP9G20Z	Plug (9 Pin)
K 26 (Z) (E) (F) (XC)	RUP2184YAN	P.C.B (Battery)
K 26 (G) (I)	RUP2184XAN	P.C.B (Battery)
K 27	RMP258ZBR	Holder (Spectrum Analyzer IND.)
K 28	RDG5712ZBR	Drum, Dial
K 29	XYN26 + C6	Screw (Dial Drum M'tg)
K 31	RJS6L3Z	Socket (6 Pin)
K 32	RJS5L4Z	Socket (5 Pin)
K 33	RJT708Z	Terminal, Socket
K 34	RJS12L4Z	Socket (12 Pin)
K 35	RJS3L3Z	Socket (3 Pin)
K 36	RKF862YA	Speaker Box (L) Ⓚ
K 37	RGE76Y	Stopper (L) Ⓚ
K 38	RYM3XCW200LZ	Speaker Grill Ass'y (L) Ⓚ
K 39 (Z) (F)	RYFXCW200LZ	Rear Cabinet Ass'y Ⓚ
K 39 (E)	RYFXCW200LZE	Rear Cabinet Ass'y Ⓚ ⚠
K 39 (I) (G)	RYFXCW200LZG	Rear Cabinet Ass'y Ⓚ
K 39 (XC)	RYFXCW200LXC	Rear Cabinet Ass'y Ⓚ
K 39-1	RHK22YA	Screw (Handle Arm M'tg)
K 39-2	RKX367Z	Arm, Handle Ⓢ
K 39-3	RNW351Z	Washer (Handle Arm)
K 39-4	XTC3 + 10CFY	Screw (Handle M'tg)
K 39-5	RKX368Z	Handle Ⓚ
K 39-6	RJC931Z	Terminal Battery (+/−)
K 39-7 (Z) (F)	RGT1252YA	Name Plate
K 39-7 (E)	RGT1252XA-0	Name Plate
K 39-7 (I) (G)	RGT1252VA-0	Name Plate
K 39-7 (XC)	RGT1252UA-0	Name Plate
K 40	RSE216ZA	Counter
K 41	RHR1334Z	Holder, Volume Knob
K 42	RHR3106ZAR	Holder, One Touch Editing Angle
K 43	RKK273Z	Battery Compartment Ⓚ
K 44	RBC1009ZA-0	Button, Direction Ⓗ
K 45	RBC1010Z	Button, Band Ⓢ
K 46	RBC1011Z	Button, Function, Equalizer Mode Ⓢ
K 47	RBC1012Z	Button, Relay Play, Dolby NR Ⓢ
K 48	RBC1013Z	Button, FM Mode/B.P Ⓢ
K 49	RBC1014ZA-0	Button, Power Ⓢ
K 50	RBD248Y	Knob, Graphic Equalizer
K 51	RBD425Z	Knob, Volume Ⓢ
K 52	RBD427ZA-0	Knob, Reverse Mode Ⓢ
K 53	RBD442ZA-0	Knob, Mixing Level, Balance Ⓗ
K 54	RBT287ZA-0	Knob, Fine Tuning
K 55	RJS2L3Z	Socket (2 Pin)
K 56	RJS5L3Z	Socket (5 Pin)
K 57	RJT707Z	Terminal, Socket
K 58	RJT514Z	Terminal, Earth
K 59	XEARR225EAY	Telescopic Antenna
K 60	RJF28Z	Holder, Fuse ⚠
K 62	RDG5782Z	Gear, Dumper
K 63	RYQ1XCW200LZ	Cassette Compartment Ass'y TAPE 1 Ⓚ
K 64	RYQ2XCW200LZ	Cassette Compartment Ass'y, TAPE 2 Ⓚ
K 65	RUQ51ZA	Spring, One Touch Editing Button
K 66	RJM164Z	Condenser Microphone
K 67	RUA734ZAR	Chassis
K 68	RUB456ZAR	Lever, Reverse Mode Slide
K 69	RUB457ZAR	Lever, Reverse Mode
K 70	RUB458ZAR	Lever, Direction Mode
K 71	RUL867ZB	Angle, One Touch Editing
K 72	RUL868Z	Angle, Counter
K 73	RUS664Y	Spring, Cassette Compartment
K 74	RHG728Z	Rubber, Microphone
K 75	RBC1043ZA-0	Button, One Touch Editing Ⓡ
K 76	RBD426ZA-0	Knob, Tape Selector (TAPE 2), Editing Mode Ⓗ
K 77	RBT282ZA	Knob, Tuning Ⓗ
K 78	RDE165ZA	Rack, Dial Pointer
K 79	RDP255ZAR	Pointer, Dial
K 80 (Z) (F)	RYM1XCW200LZ	Front Cabinet Ass'y Ⓚ
K 80 (E)	RYM1XCW200LE	Front Cabinet Ass'y Ⓚ ⚠
K 80 (I) (G)	RYM1XCW200LG	Front Cabinet Ass'y Ⓚ
K 80 (XC)	RYM1XCW200LC	Front Cabinet Ass'y Ⓚ
K 81	EAS12SL05A	Speaker (Woofer)
K 82	RAS5PH08ZA-D	Speaker (Squawker)
K 84	RJE123Y	Speaker Cord
K 85	RUL661Z	Speaker Wall Mounts
K 86	RUL869ZA	Angle, Speaker Box
K 87	XTV3 + 10G	Screw (Speaker M'tg)
K 88	XTV3 + 12GFY	Screw (Speaker Wall Mounts, Speaker Cord Holder M'tg)
K 89	XTV3 + 50G	Screw (Cabinet, Speaker Box M'tg)
K 92	RHG3011Z	Bushing, Speaker Cord
K 93	RBD426YA	Knob, Tape Selector (TAPE 1) Ⓗ
K 94	RMC1088Z	Shield Plate
K 95	RGK1294Z	Ornament
K 100	QDB0288	Belt, Counter
K 101	XTV3 + 12G	Screw (Mechanism, P.C.B, etc. M'tg)
K 103	XYN3 + F12FY	Screw (Telescopic Antenna M'tg)
K 106	RKT1070Z	Terminal, Antenna

ACCESSORIES

A 1 (Z) (F) (I) (G)	RJA20Z	Power Cord, AC ⚠
A 1 (E)	RJA86Z	Power Cord, AC ⚠
A 1 (XC)	RJA103Z	Power Cord, AC ⚠
A 4 (Z) (E) (F) (I) (G)	RQX4920ZA	Operating Instructions
A 4 (XC)	RQX4931ZA	Operating Instructions
A 5 (XC)	RJP120ZS	Plug Adaptor ⚠
A 6 (XC)	RJN48Z	Cassette Tape

PACKINGS

P 1	RHP546ZA	Poly Cover (Speaker)
P 2	RPH545ZA	Poly Cover
P 3	RPN9540Z	Pad
P 4	RPK2420ZA	Gift Box
P 5	RPN5145ZA	Sheet

GAD H.S ZEFIGXC Printed in Japan Ⓗ